

DOCUMENT RESUME

ED 260 994

SO 016 785

TITLE Famine in Africa. Hearing before the Committee on Foreign Relations. United States Senate, Ninety-Ninth Congress, First Session.

INSTITUTION Congress of the U. S., Washington, D. C. Senate Committee on Foreign Affairs.

REPORT NO Senate-Hrg-99-17

PUB DATE 17 Jan 85

NOTE 114p.

PUB TYPE Legal/Legislative/Regulatory Materials (090)

EDRS PRICE MF01/PC05 Plus Postage.

DESCRIPTORS Developing Nations; *Hunger; International Cooperation; *International Relations; *United States History; *World Problems

IDENTIFIERS *Africa; Congress 99th; *Famine

ABSTRACT

The Committee on Foreign Relations met to hear testimony regarding the immediate crisis and the underlying causes of famine in Africa. To address this problem President Reagan had proposed a supplemental request for African assistance in food, transportation, and support. Those testifying were asked to address the efforts that the United States has made in the past and should continue to make to bring about substantial policy reforms in order to achieve greater food production and distribution in Africa. The prepared statements of the following persons are provided: Daniel G. Amstutz (Under Secretary of Agriculture, International Affairs and Commodity Programs); Chester A. Crocker (Assistant Secretary for African Affairs, Department of State); John C. Danforth (U.S. Senator from Missouri); Philip Johnston (CARE); Robert J. McCloskey (Catholic Relief Services); M. Peter McPherson (Agency for International Development); and Cory SerVaas (Saturday Evening Post). (RM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

FAMINE IN AFRICA

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it

Minor changes have been made to improve
reproduction quality

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy

HEARING

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS

UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

JANUARY 17, 1985

Printed for the use of the Committee on Foreign Relations



BEST COPY AVAILABLE

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1985

11-357 0

ED260994

50 016 785

COMMITTEE ON FOREIGN RELATIONS

RICHARD G. LUGAR, Indiana, *Chairman*

JESSE HELMS, North Carolina

CHARLES MAC. MATHIAS, Jr., Maryland

NANCY L. KASSEBAUM, Kansas

RUDY BOSCHWITZ, Minnesota

LARRY PRESSLER, South Dakota

FRANK H. MURKOWSKI, Alaska

PAULA HAWKINS, Florida

CLAIBORNE PELL, Rhode Island

JOSEPH R. BIDEN, Jr., Delaware

JOHN GLENN, Ohio

PAUL S. SARBANES, Maryland

EDWARD ZORINSKY, Nebraska

ALAN CRANSTON, California

CHRISTOPHER J. DODD, Connecticut

JEFFREY T. BERGNER, *Staff Director*

GARYLD B. CHRISTIANSON, *Minority Staff Director*

(11)

BEST COPY AVAILABLE

CONTENTS

	Page
Hearing day:	
January 17, 1985.....	1
Statement of:	
Amstutz, Hon. Daniel G., Under Secretary of Agriculture, International Affairs and Commodity Programs.....	2
Crocker, Hon. Chester A., Assistant Secretary for African Affairs, Department of State.....	19
Danforth, Hon. John C., a U.S. Senator from Missouri.....	44
Johnston, Philip, Ph.D., executive director, CARE, New York, NY	56
McCloskey, Hon. Robert J., senior vice president, Catholic Relief Services, New York, NY.....	70
McPherson, Hon. M. Peter, Administrator, Agency for International Development.....	11
SerVaas, Cory, M.D., editor and publisher, Saturday Evening Post, Indianapolis, IN, accompanied by Dr. Edwin Mertz, Purdue University	81
Insertions for the record:	
Prepared statement of Hon. M. Peter McPherson.....	13
Prepared statement of Hon. Chester A. Crocker	22
Prepared statement of Hon. John C. Danforth	47
Prepared statement of Hon. Philip Johnston.....	59
Prepared statement of Hon. Robert J. McCloskey.....	73
Attachments to Dr. SerVaas' statement.....	85

(iii)

FAMINE IN AFRICA

THURSDAY, JANUARY 17, 1985

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:06 a.m., in room SD-419, Dirksen Senate Office Building, Hon. Richard G. Lugar (chairman of the committee) presiding.

Present: Senators Lugar, Kassebaum, and Glenn.

Also present: Senator John Danforth.

The CHAIRMAN. The committee will come to order.

This is the first meeting of the Foreign Relations Committee of the 99th Congress. On January 31 the committee will begin a comprehensive review of American foreign policy. But the starvation faced by millions of people in Africa impels immediate consideration and action.

This committee has reviewed the food situation in Africa on several previous occasions. Under the leadership of Senator Nancy Kassebaum, chairman of the Subcommittee on African Affairs, the committee held hearings on this subject as long ago as 1982.

At that time, long before the television cameras began to record the results of the catastrophe, Senator Kassebaum foresaw the need for major changes in African agricultural policies and international development assistance policies. That need is all the more pressing and all the more evident today.

The administration and many private agencies of the United States have responded generously, and I would like to take this occasion to offer my personal gratitude to the many individuals who have participated in this response to the famine.

But the question remains: If we have done so much, why are people still starving, and why do the American people continue to see the wrenching pictures of widespread starvation? Scarcely ever has there been a greater outpouring of private generosity than in this case. Individual Americans have donated millions of dollars of money, time, and in-kind gifts to relieve African starvation.

Clearly, more remains to be done. The President has proposed a supplemental request for assistance for food, transportation and support to address this problem. It will be the intention of this committee, along with the Agriculture Committee under the chairmanship of Senator Jesse Helms, to review the scope of the U.S. rescue effort.

As we do, it is important that we focus not only on the immediate crisis, which is compelling, but upon the underlying causes of famine in Africa. It is just not enough to respond after the fact. We

(1)

must help to create the conditions for preventing famine from occurring.

We cannot alter the weather, but we can plan in foresighted ways, and we can strongly encourage the adoption of responsible, effective political and economic choices by the governments where famine has occurred and still threatens to occur.

The committee would invite the witnesses today to address the efforts which we have made and should continue to make to bring about substantial policy reforms to achieve greater food production and distribution locally.

I know that the members of this committee will support timely and generous efforts to help those who are suffering through no fault of their own. I look forward to the testimony of our witnesses today and to prompt congressional response to the request for further assistance for the victims of famine.

The first witness we want to hear from is Dan. Amstutz, because he will need to leave the committee hall at an earlier time. And so, Mr. Secretary, if you will proceed with your testimony we would appreciate it.

STATEMENT OF HON. DANIEL G. AMSTUTZ, UNDER SECRETARY OF AGRICULTURE, INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS

Mr. AMSTUTZ. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I appreciate the opportunity to discuss the Department of Agriculture's participation in the intensive U.S. effort to alleviate the effects of famine in Africa.

Large parts of sub-Saharan Africa this year have been hit by abnormally low and erratic rainfall. More than 20 countries have been identified as seriously affected by drought, famine, or both in the culmination of a long period of intermittent low rainfall which began in the late 1960's.

The current drought has brought a substantial decline in food production, which has fallen behind population growth rates. The drought also has affected cash crops, livestock, and water and power supplies. In several countries the situation has been aggravated by logistical difficulties, political disturbances, the influx of refugees from neighboring countries, and inappropriate agricultural policies.

The Food and Agriculture Organization [FAO] of the United Nations has identified 21 countries which face exceptional food supply needs this year; 15 countries affected last year are again facing a food emergency in 1985. Food supplies are most seriously affected in eight countries: Ethiopia, Sudan, Kenya, Mozambique, Chad, Mali, Niger, and Mauritania; and to a lesser extent in Senegal, Somalia, Tanzania, Zambia, Zimbabwe, Burundi, Rwanda, Botswana, Burkina Faso, Cape Verde, Angola, Lesotho, and Morocco.

The coastal regions of west Africa, which include Ghana, Guinea, Guinea-Bissau, Benin, and Togo, are not facing a food emergency situation so far this year.

The largest production declines have come in east Africa, where Kenya, Sudan, and Ethiopia have experienced devastating drought

during their main growing seasons. The food situation is poor in large parts of the Sahelian zones of Senegal and Mauritania and is the most severe in Mali, Niger, and Chad.

In southern Africa, where the harvests were completed, food supplies are generally down for the third consecutive year, notably in Mozambique. At present the food situation in Ethiopia appears the worst in Africa, although the situation is deteriorating in Sudan.

Analysis of food availability is difficult in the context of predominantly subsistence production, uncertainties about the size of the population, and political instability, but it is estimated that between 6 and 14 million people are at risk of starvation. Food distribution efforts have also been hampered by inadequate infrastructure and civil strife.

Sudan is also suffering from severe drought and an influx of refugees from Ethiopia in the east and Chad in the west. The sorghum crop, the main cereal crop, is only a portion of normal, and up to 4 million people are estimated to be seriously affected. The situation is equally serious in the landlocked countries of Chad, Niger, and Burkina Faso, where approximately 1.5 million people are at risk and increasing food aid imports pose a severe logistical problem.

In Kenya the total population seriously affected by the drought is estimated at 2 million. As a result of the worst drought there in many years, the main season harvest is estimated at 40 percent below normal. Although the prospects for the minor short rain crop to be harvested in early 1985 are better, food aid needs are large.

The situation has improved in neighboring Mozambique relative to 1984, but prospects for the near future are dim and an estimated 2.4 million people are at risk. In addition, continued insurgency has hampered food distribution.

The most pressing concern in Africa is the plight of between 2 and 3 million refugees. The exact number of refugees is difficult to estimate, but thousands are streaming into Sudan, and a smaller number into Somalia and Djibouti. Drought conditions have driven an estimated 100,000 Chadians into western Sudan and between 100,000 and 200,000 Ethiopians are expected to enter eastern Sudan in the next few months.

There are already an estimated 400,000 Ethiopians in Sudan, severely taxing those areas where they are located. Grain needs to feed the refugees in Sudan alone are projected at 1.7 million tons, excluding additional refugee needs. The situation concerning availability of water is equally grave.

The overall food aid deficit in sub-Saharan Africa is estimated at 3 million tons. However, it is necessary to use caution when assessing the food deficit in Africa. The food deficit is a cereal deficit, and there is no absolute correlation between cereal shortfalls and emergency food needs. The consumption of alternate foods, such as cassava, can lessen the impact of a cereal shortfall, and onfarm stocks and nonmarket transactions are difficult to calculate.

The U.S. Department of Agriculture is taking steps to expedite American food relief by working within the Department and with other agencies, private volunteer groups and other donors. The De-

partment is currently represented on all major African relief task force committees and working groups.

Within the USDA, the Foreign Agricultural Service [FAS], the Economic Research Service, and the Agricultural Stabilization and Conservation Service [ASCS] are working to monitor, program and ship assistance as fast as possible to Africa. For example, FAS and ASCS are working out the mechanism to implement the food security wheat reserve and the section 416 overseas donation program. ASCS has undertaken steps to expedite movements to U.S. ports. In addition, the United States is working through the United Nations and bilaterally to move assistance to Africa.

Public Law 480, title I/III and title II. In recent years, the United States has provided almost half of all the food aid received by countries in sub-Saharan Africa. U.S. emergency assistance for fiscal year 1985 has already exceeded last year's level.

So far this fiscal year, over 1.7 million tons of food, valued at \$538 million, have been approved for sub-Saharan Africa. Over \$309 million, including ocean freight, in regular and emergency Public Law 480 title II donations and over \$172 million in Public Law 480 title I and III programs, long-term concessional credits. These figures do not include U.S. donations under the U.N. World Food Program.

In early January, President Reagan announced an additional \$411 million this year in famine relief for Africa, consisting of a \$235 million supplemental request, of which \$185 million would be for title II, \$176 million from existing resources, including \$40 million switched from titles I and III to title II. The additional assistance will bring 1985 emergency and regular food aid and disaster relief to more than \$1 billion. Total fiscal 1985 U.S. emergency aid will now exceed 1.5 million tons, about half of the projected need.

On July 10, 1984, President Reagan announced that as part of the U.S. efforts to relieve the African drought emergency, ocean freight financing would be provided under Public Law 480 title I for selected countries. The Sudan and Mozambique have been approved to receive \$5.2 million and \$2.5 million, respectively, in ocean freight financing so far this year.

A significant part of United States African relief is now targeted for Ethiopia, where total food needs are estimated at over 1 million tons. U.S. food assistance to Ethiopia during fiscal 1985 is, so far, over 200,000 tons, valued at almost \$115 million, and is being distributed by private voluntary organizations and the U.N. World Food Program.

Total fiscal 1985 U.S. food aid—1984 U.S. food aid was \$17.3 million for just over 41,000 tons. In addition, the United States has programmed emergency relief to Ethiopian refugees in eastern Sudan, and to Kenya, over 90,000 tons; Mozambique, nearly 58,000 tons; Sudan, 82,000 tons; Mali, 21,000 tons; Chad, 29,000 tons; Niger, about 66,000 tons; and Mauritania, 20,000 tons.

In addition to traditional aid programs, the President has released 300,000 tons of wheat from the U.S. food security wheat reserve to be used under title II to provide urgent humanitarian relief. A portion of the wheat is targeted for sub-Saharan Africa.

The United States is also donating over \$50 million in dairy products under the section 416 overseas donation program. Recent

ly, wheat was added to the dairy commodities available under section 416, and to date almost 32,000 tons of commodities have been approved for African relief. Recipients include Ethiopia, Mozambique and Niger.

U.S. emergency relief is not limited to food aid. It also includes transportation financing, equipment donations, medical supplies, and technical assistance. The United States is providing two cargo transit planes as part of an international airlift to ferry food to the interior of Ethiopia, for example.

The transfer of resources to sub-Saharan Africa has been enormous. However, per capita food production in sub-Saharan Africa has fallen over 20 percent the last two decades. The donor community is still responding to the immediate need by saving the greatest number of people from hunger, but unless we help create the minimum conditions necessary for the recovery of Africa—of agriculture in the affected areas, the alarming conditions can be expected to continue. Already there are signs of the drought affecting the 1985 crop growing in parts of southern Africa.

We can help by continuing to provide financial and technical assistance. Areas where this long-term assistance must be targeted include agriculture rehabilitation and development, infrastructure, and agricultural research, especially in developing drought- and insect-resistant crops. I know Peter McPherson will be addressing more in this area of economic development.

Mr. Chairman, let me just conclude my formal remarks by saying that we recognize the enormity of the task at hand. Speaking for the Department of Agriculture, we are pleased and proud in the manner in which the different agencies of this Government, particularly the Department of State, AID, and the Department of Agriculture, have been able to work collectively and we think effectively in addressing the enormity of this challenge.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Secretary Amstutz.

In order to accommodate the Secretary's time, we have proceeded with his testimony. But at this point I would like to call upon my colleagues, Senator Kassebaum and Senator Glenn, for any opening comments they might have, and perhaps at the same time for questions that they might have for Secretary Amstutz, in the event that he must depart before the rest of the panel proceeds.

Senator Kassebaum, do you have a statement, comments or questions?

Senator KASSEBAUM. Thank you, Mr. Chairman.

First, I would just like to say I am very pleased you called your first hearing as committee chairman to focus on this enormous problem. It is very sad to think that it has taken this tragedy to focus the press and the public's attention on a problem that has existed for 4 years that I have chaired the African Affairs Subcommittee, and even long before that.

In the 1982 hearing in which we discussed the declining agricultural production in Africa, we mentioned, Secretary Amstutz, some of the things that you have touched on today. It concerns me that we have been talking about this over so many years, and that between 1973 and 1980, \$5 billion was spent on international assist-

ance for agricultural development, since 1980 even more has been spent, and yet we continue to see people eating less well.

True, drought has taken a real toll. But I also happen to feel that we simply are not going to solve the problem, whether we are talking about \$500 million in food aid or 1 billion in food aid, if we are not willing to discuss the root problems of overpopulation, failed agricultural policies, and corruption.

And I hope that as the public, the press and the Government focus on this, we can put together some constructive efforts. You touched on the need for agricultural research and the lack of infrastructure. Again, we have talked a lot, but not much has really taken place. I would hope that as we focus on some suggestions that perhaps, again with the coordination of other donor nations, which I believe is absolutely essential, we can put together an emergency effort that will tackle the long term as well as just the dollars that might be needed at this point.

So I guess I had more of a statement than a question, but it is real frustration to hear these same things year after year, and yet not seem to be able to come up with the changes that I think are necessary or the focus in an emergency plan that will address the underlying problems. I do not know if the Department of Agriculture has some recommendations to make.

One brief question before asking you that. Who determines what kind of food is sent? Is this something that comes from AID or the Agriculture Department, or a coordination?

Mr. AMSTUTZ. On the emergency food programs, namely title II, where the pressing need is to get food to hungry people as quickly as possible in the form best suited for their purposes, really the decisions are made in the recipient countries. We act on the requests we receive from the missions and the private volunteer organizations [PVO's] and in most instances I believe we fulfill the requests we get from them.

Senator KASSEBAUM. We are sending more processed products now, are we not, rather than the raw grain?

Mr. AMSTUTZ. Yes, Senator, and that is why I differentiated between the emergency food programs, namely title II, where again the pressing need is to get food there as quickly as possible and have it in the form ready for consumption by the people. There is less processed grains shipped under the long-term assistance programs under title I and title III, where the emergency aspects are not nearly so acute.

Senator KASSEBAUM. If I may, just one more question. From your standpoint, do you believe that the Agriculture Department is doing all it can to focus on agriculture policy, where it has failed, where it could be improved, rather than just more contracts to study what the problem is all about?

Mr. AMSTUTZ. Senator, that is a very good question, and I guess none of us can ever say that all of us have done all we can do. We very much agree with the things that you have said, that one subject is the emergency at hand and doing what we can to alleviate the horrible problems.

The other subject is the chronic problem. We firmly believe that hunger is caused by poverty, that until poverty is eliminated there will be hunger around the world and there can be no food security

around the world. We believe that an essential beginning to the elimination of poverty is responsible governments in those countries where problems exist, governments that are responsible and responsive to the needs of their country.

In the final analysis, recovery must begin there. The President has taken note of this in the economic policy initiative he sent up here last year, asking over a period of years some \$500 million to aid in economic recovery in Africa, and he has taken note of that again in announcing the Food for Progress Program, which I think Peter McPherson will be talking about.

In each of those instances, the assistance that we as a Government want to provide is directly dovetailed to actions within those countries to correct their economic problems, meaningful long-range plans ready to be put into operation. When we go to international fora on food, we press and press and press for national food programs. That has to come from each of these countries before we can expect real recovery.

I will say, Senator, though, on balance I am heartened. I was in Ethiopia in June and had an opportunity to meet with many emerging leaders in agriculture from the African countries. And while it would be a mistake for me to single out specific countries today, I think, I am heartened by the quality of this leadership in many of these countries, and I have a great deal of confidence in them.

Most of them recognize what the long-term problem is and most of them want to address that. The vast majority of them do not want to be recipients of aid over a long period of time. They recognize that is no solution. So I am heartened.

It is a massive task. It is going to take courage by the leaders in those countries and take courage over on this side, too, to gear our policies toward the kind of success we are hoping to realize. But I think we can do it.

Senator KASSEBAUM. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Glenn.

Senator GLENN. Mr. Chairman, I am sorry to have to be in and out during some of today's hearing, but I have several meetings to attend and I have to be at all of them.

I have several questions for Mr. Amstutz, who is here from the Agriculture Department, since he has some responsibility for this issue. While dealing with this problem is the Department's responsibility, we can be of long-term help in several areas.

I wish I shared your confidence in the governments of Africa being able to cope with these problems. Every news report that I have seen, if correct, shows that some of the governments there are obstacles to solving their own problems.

I can't help but wonder what the Department of Agriculture is doing to develop new crops or encourage water development. These developments are necessary if we are to deal with the African Continent's changing climatological patterns. I've seen one estimate that indicates that the Sahel region in Africa is expanding southward at about 8 miles per year. This climatological condition is unlikely to be altered until the world goes through its 11- or 22-year cycle of weather changes. What is the Agriculture Department

doing in research on dry land crops, and on water development that can help meet these problems?

We are the leading Nation in agricultural experimentation in the world. The green revolution is an American revolution that has helped in other areas of the world like Asia. What are we doing in this area that might be of major help to the governments of Africa? Even if these governments are as concerned with working as hard as you indicate, they're not able to do the research and development that we could do best in this country. Do you need more money in these areas of research?

We all see the horrors of famine on TV every night and read about it every day—what's to happen down the road? I share with the distinguished Senator from Kansas the concern that we are not addressing this problem in the long term. We are stemming the flow of blood now, but what is going to happen next year and the year after that?

Five years from now, when the Sahel region has expanded another 40 or 50 miles to the south, are we going to be doing the same thing? Rather than sending in so many million metric tons—something that is right and that we can be proud of—what can we do that will help these African nations be self-supporting?

We have a compassion for people in need around the world. We have been known for our help in the past. But how can we develop programs that will help the hungry nations to be more self-supporting? Could you address that briefly?

Mr. AMSTUTZ. It is a good question, Senator. More than half of the technical assistance the Department of Agriculture provides is to countries in Africa. Our Office of International Cooperation and Development works in conjunction with AID in carrying out many of these programs. Last year alone, 40 agriculturally related technical assistance projects were carried out in 20 African countries.

These programs range from dry land cropping systems in Kenya to agricultural planning in the Sudan, rural development in Tanzania, and crop protection in the Sahel. Last year we trained over 800 agricultural technicians from 41 countries, brought them over to the United States and, working in conjunction with educational institutions, helped in training programs.

We feel we are capable of addressing this task, and so far the funds have been forthcoming, Senator, to address it.

Senator GLENN. For research, not just for food but for research?

Mr. AMSTUTZ. Yes, sir; technical assistance and development.

Senator GLENN. You do not lack for funds in that area, then?

Mr. AMSTUTZ. No; and we concur with you, as I said in responding to Senator Kassebaum, that for poverty to be defeated economic development has to ensue, and of course that means agricultural development. And many of these countries are agricultural. All of them, as a matter of fact.

And Senator, I hasten to add, I said in most of the African countries I see responsibility. I didn't say all, and there surely are some major problem areas. I just didn't think it was fitting to single them out.

And I think Mr. McPherson would like to comment on this technical assistance.

Mr. McPHERSON. Yes; I particularly would like to, Senator, because the need for a green revolution, if you will, in Africa is almost a passion of mine. I am convinced that an enormous amount has to be done here. Those countries simply are not going to be able to feed their populations and make the economic progress that is necessary unless there is augmented agricultural production.

And agricultural production cannot be obtained with the old seeds and technology that they have lived with all these years. That is why when the President made his statement on January 3 on Africa, the hunger initiative, he talked about the short-term needs and then he talked about the long-term needs.

He had three basic points that the United States should focus on in the long-term needs, and one of those was agricultural research. Historically in the world, we have had a lot of research for temperate zone reasonable rainfall areas, such as here, Europe and Canada, and a lot of research on commercial agriculture, such as bananas and pineapple, and a decent amount of research on irrigated agriculture, the green revolution with irrigated agriculture.

But there has been almost no research until just the last few years on dry land agriculture, agriculture with 10 to 15 inches of rainfall per year. That's the kind of rainfall that you get in most of these places where there is now a serious drought question and problem.

That is why 4 years ago and a little bit before that, but especially the last 4 years, AID has put, and certainly working closely with USDA, an enormous amount of money into high-yielding, into miracle, if you will, sorghums and millets. Texas A&M, working with others, has now developed a hybrid sorghum.

I remember reading about the kind of yield increases that we had in Ohio and Michigan, where I grew up on corn, because of the hybrid sorghum, the hybrid corn in the thirties and forties. This sorghum, which we have now tested for a couple of years, has an increased yield of about 150 percent a year.

We figure if we can get 25 percent of the traditional sorghum planting area planted in Sudan, where this is particularly applicable, we can in short make up for the food gap that currently exists in Sudan. Now, there will be problems, I am sure, in doing all of that, but that is the kind of thing we need.

There is something which the Africans call cow peas, which is a sort of bean. We now have a cow pea which can be planted in areas in which there is a relatively short wet season, a short rainy season, as opposed to the longer season that generally would utilize the cow pea seeds, and that substantially would increase production.

We are working on a number of fronts. Now, we are not there yet and it is going to take at least 5 to 10 years to really impact. And frankly, I think we all are aware that there are no really quick fixes to this thing. But the agricultural technology is a key part of it, technology in terms of creation of new technology, in terms of what we can do in training people here so they can go back home to help do their own.

At Kansas State, at Purdue, Indiana and Ohio State and so forth, there are people that are brought over every year to do training in this effort.

Senator GLENN. Thank you.

Mr. Amstutz, did you have another comment?

Mr. AMSTUTZ. Yes; and if we get this combination, Senator, of technological assistance with responsible, responsive governments, governments in Africa that recognize that incentives have to be provided to farmers to produce, and end these low food price policies that have existed in many of these Third World countries that have existed in many of these Third World countries that have forced people off the land and into the urban areas, which have exacerbated production problems—I think we are seeing signs of that.

Senator GLENN. Are the governments being responsive to your initiatives? What about the Government of Ethiopia? We have heard a number of horror stories about their lack of cooperation and concern for their own people. Are they being cooperative in this area?

Mr. MCPHERSON. I think it is fair to say that we do not see any policy change in terms of pricing policy for farmers, paying farmers reasonable amounts for what they produce, or in terms of moving away from collectivized farming in Ethiopia.

But the reverse is true in countries like Mali and Somalia and Niger. A number of countries in Africa, in the 4 years that I have been at AID, I have seen a number of countries move away from the sort of statism, centralist agricultural economic policies, not fully but in important part.

Senator GLENN. If they are not being cooperative in this area, is what we see now in Ethiopia just the beginning of the horror stories, that will lead to even greater horror stories in years to come?

Mr. MCPHERSON. I think that unless the Ethiopian Government faces up to and deals with some of its basic economic policies and problems, that there are going to be ongoing problems.

Senator GLENN. Will the situation be worse instead of better?

Mr. MCPHERSON. Well, it is hard to say, because of course the proximate cause here is the drought. But there are tremendous population pressures in the north and in other parts of Ethiopia. I would say that how bad it is in the immediate future, in the next couple of years, will depend in important measure upon the amount of rainfall. But I think the underlying fundamental problems will not be changed unless there is a shift in economic policies.

Senator GLENN. Thank you.

I wish we had time to continue. I have to leave for a little while, Mr. Chairman, but I will be back as soon as I can.

The CHAIRMAN. Thank you, Senator Glenn.

Secretary Amstutz, you are excused if you need to leave at this point.

What I would like to do, if it is the pleasure of Mr. McPherson and Secretary Crocker, is to ask the two of you to proceed with your opening statements, and then we will attempt to question the two of you as a panel at that point. And if it is possible, please summarize your statements in 10 minutes. If that is not possible, we will spill over, because we want to make certain that the testi-

mony is full. But the statement as you have presented it in writing will be made a part of the record.

I would like to ask now the Honorable Peter McPherson, the Administrator of the Agency for International Development, for his testimony.

**STATEMENT OF HON. M. PETER MCPHERSON, ADMINISTRATOR,
AGENCY FOR INTERNATIONAL DEVELOPMENT**

Mr. MCPHERSON. I do not know whether Dan Amstutz has gone yet, Senator. But I think a critical part of what we have been able to do in the last few months with this program, which has truly been enormous, has been Under Secretary Amstutz' really aggressive leadership in figuring out how to tap into the CCC stocks, how to use the so-called Kasten amendment pricing. A number of groundbreaking interpretations and moves have been just extremely helpful to us, and we could not have done what we have done without the USDA.

I think first of all, Senator—well, let me say to begin with that I feel that your taking the lead in calling this hearing so early in this year is excellent, is helpful to us, and we very much appreciate the opportunity to be here today.

The United States unquestionably is taking the lead in the world in responding to this crisis. That is recognized in Africa, it is recognized in Europe and Japan. We were doing so actually a year ago, because in fiscal year 1984 we provided about 50 percent of the food that actually arrived in Africa, and we provided more food to Africa for drought during fiscal year 1984 than any American Government had ever provided to Africa in the past.

But of course, 1985 has been the year of this enormous response, with the President announcing on January 3 that this year we would hope and plan to provide something in excess of \$1 billion in food and disaster relief for Africa. The total amount of food need, that we have determined is approximately 3 million tons, and it is with these moneys that we are asking for or that we already have, we will be able to provide something more than 1½ million tons of food.

The total tonnage requirement frankly has been a complex, involved process to determine that figure. I know that my staff has had extensive sessions with your staff here in the last few days and a number of other groups on the Hill. It has been an agonizing process to try to come up with numbers that we felt reflected the situation.

We worked hard at it, both in terms of utilizing the people that we have in the field in these countries and comparing notes with the other donors, where there have been extensive meetings, and that is why we have come up with the 3 million figure.

We think that, consistent with our leadership position, that we should be providing roughly 50 percent of the need, and that is what we have projected here. We also have felt, of course, that we needed to exercise an initiative in helping to encourage the rest of the world to provide the other 50 percent, and to that end a few weeks ago I met with the Secretary General of the United Nations.

At that time and thereafter, we urged that the U.N. Secretary General appoint a person to be his coordinator, his encourager of donations. And the Secretary General has appointed Brad Morse, the head of the U.N. Development Program, to undertake that task.

We have called upon the Secretary General and Mr. Morse to convene a conference of donors, at which time the pledges for the needs could be met, and of course we are going to be in a very strong position as we go into that meeting, with enormous food that we are pledging. And we feel in the weeks ahead such a conference will be held and very substantial amounts of food will be pledged.

There was a brief discussion here a moment ago about the long-term needs, and of course that is a matter of enormous concern to us. I mentioned our commitment to agricultural research, and that is a major concern of ours. The President in his African hunger initiative said three things that we wanted to focus on as a country: One was agricultural research; the other was training and education; and the third one was agricultural policy.

There are other things that are important—as Senator Kassebaum mentioned, population pressures; and I might mention environmental degradation; and numbers of other matters—to which we are and should continue to address, with our total African economic assistance budget of about \$750 million.

But I think that we have perhaps a unique role to contribute to those three areas: agricultural research, training and education, and agricultural policy, that is policy change in these countries.

Let me conclude my remarks, Mr. Chairman, by talking a little bit about two other topics: one, the Sudan; and then second, Ethiopia. Sudan has become the explosion in the last few weeks. We now believe Sudan has a population of about 4 million people that is seriously threatened by the drought. That is opposed to 7.7 million or so in Ethiopia that we think are under serious threat.

That explosion of needy in Sudan is, as I say, only in the last few weeks. To that end, I am announcing today a decision that we made in very recent times of an additional 100,000 tons that we are providing, that we have now committed to Sudan. This brings up the total amount of food for Sudan to over 200,000 tons and a total of, including the refugee moneys, of \$63.1 million which we so far this fiscal year have put into Sudan.

Mr. Chairman, there are going to be more commitments to Sudan, because we are not through there by a long way. But I would like to talk about that a little bit or emphasize that this morning, because we too often have in recent weeks tended to think that this is an Ethiopian problem, while in fact it is a problem of 20 to 21 countries throughout the continent. Sudan at this hour is the second largest problem country.

Next let me talk about Ethiopia. We agonize over Ethiopia and how to deal with that situation every day, as you well would imagine, and there is no question that the United States has responded enormously, with some 253,000 tons of food so far this fiscal year, a total of \$123 million of food, a very large amount indeed.

There remain serious problems, though, in those government-controlled areas. People who have gone recently, as well as when I

went there just a few weeks ago, I saw as well, that food is getting into the mouths of children who need it. The situation is better there.

But we are very uncomfortable about the situation in secessionist-controlled areas, in Tigray and Eritrea, where there are several million people who are under threat and where we think that more food needs to go. We are, frankly, upset with the news reported today of an Australian ship going into the port of Assab, a ship which was also going on to Port Sudan to unload some food, which would have been taken down through to Sudan, to go over into Ethiopia. That ship, instead of being allowed to go on, apparently had its cargo of food impounded, some 6,000 tons of grain.

We do feel that we have an understanding with the Ethiopian Government that they will allow food to go to people in need without political consideration. That understanding was a very important understanding for us, a very important point for us to discuss and to get straight. We frankly find this unconscionable if the facts are as they appear to be.

We think that starving people simply cannot be pawns. We do not have all the facts yet, but as I say we think that the situation is unconscionable if the facts are as they now appear. We think that it is important for the Secretary General and his agent, Brad Morse, to in the immediate future inquire further on this matter, and in fact to work toward obtaining and obtain enforcement of the concept that food must be delivered to people on the basis of need and no other consideration.

Mr. Chairman, it is good to be here today and I look forward to your questions.

[Mr. McPherson's prepared statement follows:]

PREPARED STATEMENT OF HON. M. PETER MCPHERSON

Mr. Chairman, distinguished Senators, it is a pleasure to appear before this Committee today with Messrs. Amstutz and Crocker to discuss the grave problems of drought and famine which plague Africa.

America's response to the continuing emergency in Africa has been early, quick and massive. In many cases the United States has taken the lead in determining the need—and then has responded first and most generously, ensuring our assistance arrives on time, when it is needed. We shall continue to do so.

As you know, for more than a year now, President Reagan has been personally involved with the increasing severe problems created by the African food emergency. Last Spring, for example, he directed the preparation of a study to identify ways in which the United States could know and respond to emergency food situations more effectively. In July President Reagan approved and announced the changes resulting from the study. Earlier this month, when he made his statement on the African Hunger Initiative, the President commented again upon the problems in Africa and the commitment of the United States to help resolve the situation. In the African Hunger Initiative statement he directed the U.S. Government's total commitment for food aid and disaster relief programs for Africa in fiscal year 1985 to exceed \$1 billion. The \$1 billion program will include food resources already committed to Africa this year, the channeling of other AID resources to treat the African crisis and a supplemental appropriation request of \$235 million to be sent to the 99th Congress for immediate action.

Now and for the immediate future several million people in Africa are in mortal danger, and many millions more face a prolonged period without adequate food. The lives of millions of Africans are at risk. The drought, and accompanying food shortages and famine that spread throughout the continent, is of historic proportions. It is, without question, the most serious emergency Africa has faced since independence.

The drought and its impact has exacerbated a situation that was already tenuous. As a result, the United States and the rest of the world have been presented a dual challenge: In the short term, a humanitarian challenge; in the longer term, an economic development challenge.

In the short term, emergency food and non-food assistance helps deal with the immediate problems. More emergency aid is needed, however, and that is why the Administration is asking for a supplemental appropriation of \$235 million. We need new money this fiscal year for additional emergency food and non-food assistance programs, as well as to replenish the President's Emergency Refugee and Migration Assistance Fund.

In the longer term, AID's agricultural strategy for Africa has three principal elements: (a) policy reform; (b) agricultural production and research; and (c) human resource and institutional development.

Taken together, I believe these activities, coupled with the cooperation of the donor community and the countries of Africa, point the way toward a more lasting solution to Africa's current and vexing problem of providing adequate food for its people.

The emergency response from the United States has been impressive. In fiscal year 1984 the United States approved \$200 million of emergency assistance, including more than 500,000 metric tons of emergency food aid. Both amounts were a record for Africa in a single year. Total food aid to Africa from the United States was more than 1.4 million metric tons, also a record.

America's response has been not only significantly faster but also larger than any other donor or institution. This is because, inter alia, AID has more people on the ground in most countries in Africa. As a matter of course our AID missions analyze and report to us on a wide range of matters, including progress of the rainy season, the state of the harvest and food needs and availabilities. I am convinced our understanding and analysis of the situation in each of the countries at risk is as careful and thoughtful as possible, given the constraints under which we operate. Consequently, I believe firmly that AID knows as much—if not more—about the emergency situation in each country as any donor. All of our information, naturally, is shared widely—with the host country, interested donors and other groups. We also review continually, both in the field and here, our understanding of the situation. AID's goal is to be able to respond quickly, decisively and in an appropriate fashion to each situation. In effect to contain and eliminate the emergency (once identified) as much as possible.

The emergency situation in Africa this year is worse than last year. More people are suffering than before. This is because several new and populous countries (Sudan and Kenya), ones that were not affected last year, have been added to the danger list, and because the situation in Ethiopia in particular has become worse. As a result our emergency food and non-food aid has already dramatically surpassed last year's record levels. By the middle of January, barely over one-quarter of the way through fiscal year 1985, about \$370 million of emergency assistance programs had already been approved. Of this amount \$346 million was in emergency food aid and the remainder non-food emergency assistance through the Office of U.S. Foreign Disaster Assistance and the State Department's Bureau for Refugee Programs.

More assistance from the United States and other donors is needed, however, and more must be provided. Our analysis makes it clear that the current crisis will—at a minimum—continue well into next year. In a number of countries, particularly Ethiopia and Sudan, it is quite possible many millions will continue to suffer for the next several years.

THE SUPPLEMENTAL REQUEST

It has become apparent that it is necessary to request a supplemental appropriation for more food, non-food and emergency refugee assistance programs if the United States is to meet a fair share of Africa's emergency needs on a timely basis. As a result, the Administration will soon submit a request for supplemental appropriation of \$235 million. Given current funding availabilities and emergency needs in Africa, it is highly desirable the supplemental request be approved quickly, by early March 1985.

The request will be divided as follows:

	Millions
a. Increase in Public Law 480 Title II emergency funds.....	\$185
b. Increase in funds available to the Office of U.S. Foreign Disaster Assistance.....	25

	<i>Millions</i>
c. Replenishment of the Emergency Refugee and Migration Assistance Fund	25
Total	235

FOOD

Over the late summer and fall we worked to refine our understanding of the needs in the affected countries and to determine how best the U.S. could respond. By the end of 1984 (through the first quarter of fiscal year 1985), resources for various emergency food aid programs committed to Africa were already well over \$260 million:

	<i>Millions</i>
Title II emergency programs	\$226
Section 416—emergency	42
Total	268

The \$268 million bought and shipped 660,000 metric tons of emergency food aid. A further \$218 million has been identified which will be used to meet expected additional U.S. emergency food aid commitments to sub-Saharan Africa:

	<i>Millions</i>
Wheat reserve	\$106
Title I transfer to Title II	40
Title II reprogramming	47
Section 416—emergency	10
Other	21
Total	\$218

The \$218 million will provide and ship about 595,000 metric tons of emergency food aid. Programs are now being approved against those resources. But there still will not be enough funds available for the United States to respond in the way I believe proper, appropriate and in keeping with our tradition of being the donor that supplies the greatest amount of relief fastest to international humanitarian problems.

At this time I believe we will need an additional \$185 million for further emergency food aid programs in fiscal year 1985. This amount should buy and ship, including internal transportation, a further 245,000 metric tons, as well as provide a contingency against unanticipated needs. This will be the first time we have used the newly legislated authority that permits us to pay for internal transportation costs for emergency programs from Public Law 480 Title II appropriations. As I stated earlier, this increase is needed urgently, no later than early March, if we are to continue approving programs so food will arrive where it is needed on a timely basis and without interruption.

Our emergency programs are based on a careful analysis of the situation in each country and belief that in approving a program we will be able to ensure that: (a) the people at risk have been identified; (b) the food can be delivered to the people at risk; (c) the distribution will be carried out in an equitable and acceptable fashion; and (d) the United States will be able to monitor and audit the program in a satisfactory manner.

With approval of a supplemental food appropriation of \$185 million, U.S. emergency food aid to Africa will be roughly 1.5 million metric tons, three times the record amount from the previous year. We believe this will meet 50 percent of Africa's emergency food needs. The value of emergency food aid programs in fiscal year 1985 will be about \$671 million. When added to our other, regular food aid programs to Africa, the dollar value of U.S. food aid approvals for sub-Saharan Africa in fiscal year 1985 will be more than \$920 million and the volume of food aid would be close to 2.5 million metric tons, if not more.

NON-FOOD EMERGENCY ASSISTANCE

There is \$50 million of non-food emergency assistance for Africa in the supplemental request: \$25.0 million to replenish the Emergency Refugee and Migration Assistance Fund; and \$25.0 million for the Office of U.S. Foreign Disaster Assistance in AID.

The Emergency Refugee and Migration Assistance Fund is a special appropriation, drawn upon by the President to meet "unexpected urgent refugee and migra-

tion needs" whenever he determines it is "important to the national interest" to do so.

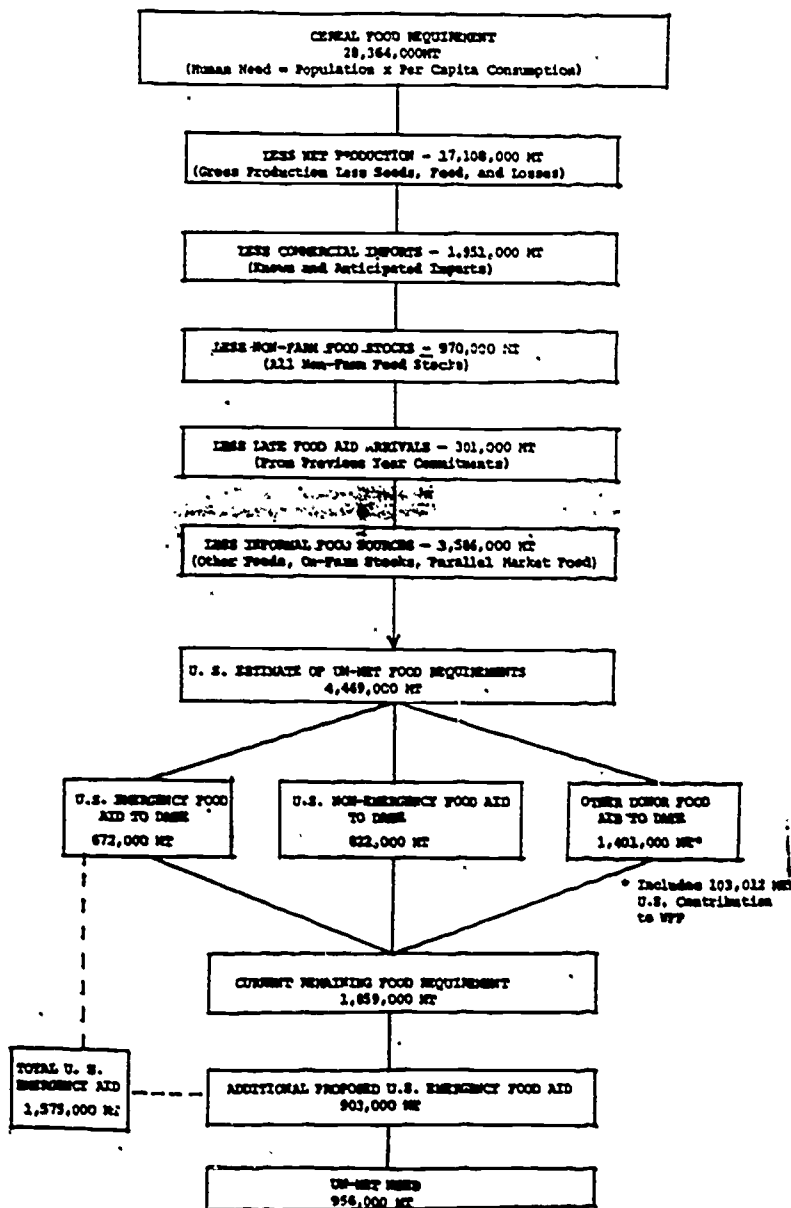
The President recently authorized a drawdown of \$25 million from the Fund to support the emergency appeals of the United Nations High Commissioner for Refugees (UNHCR) and the International Committee of the Red Cross (ICRC) on behalf of thousands of refugees and displaced persons in Africa. After the recent drawdown, the Emergency Fund has only \$7.9 million left. We anticipate further African demands on the Emergency Fund this year and in the future. The \$25 million request, to be used only as emergencies occur, will restore the flexibility needed by the President to respond to further refugee and migration emergencies.

AID's Office of U.S. Foreign Disaster Assistance is requesting an additional \$25 million for non-food emergency assistance. The funds would be used for a variety of non-food emergency needs. The additional \$25 million when added to the borrowing authority of \$50 million already available to AID should provide an adequate cushion to meet non-food emergency needs in sub-Saharan Africa for the rest of fiscal year 1985 and allow us to respond to other disasters worldwide. Some people may question why we are asking for so much food and (seemingly) so little non-food assistance in the supplemental request. Until now many internal transportation costs for Public Law 480 Title II emergency programs have been paid from the disaster account. As a result of the President's decision last July, new legislation has been passed and signed into law which permits the use of Public Law 480 Title II appropriations to pay the costs of internal transportation for Public Law 480 Title II emergency programs. The \$185 million requested in the supplemental for Public Law 480 Title II emergency programs includes payment of internal transportation costs that have, in the past, been met from the disaster account. In addition, because the United States is providing so much emergency food assistance, an area where we have an enormous comparative advantage, I believe other donors will wish to provide the non-food emergency needs. Since the African drought requires a worldwide response it is appropriate that other donors meet a proportionately larger share of the non-food assistance costs.

Finally, some will question whether our request for \$235 million is enough to meet the needs in sub-Saharan Africa for the remainder of fiscal year 1985. I am convinced that our information is as accurate as possible at this time and that we know the situation there better than most. But Africa's climate and environment can be fickle and capricious—Africa is a continent subject to quick and dramatic change. It is possible the needs will increase over what we anticipate now.

Thank you, Mr. Chairman. I will be pleased to respond to questions.

U.S. ANALYSIS OF SUB-SAHARAN CEREAL SUPPLY SITUATION FOR CURRENT 84/85 CROP YEAR



ANALYSIS OF SUB-SAHARAN CEREAL FOOD SITUATION FOR CURRENT (84-85) CROP-YEAR

Country	Food requirement	Net production	Commercial imports	Non-farm food stocks	Last year - food aid	Informal sources	Unmet need	U.S. non-emergency	U.S. emergency/416	Other donor	Current need	Additional U.S. aid	Unmet need
Angola.....	635	335	217	NA	4.7	0	78.3	0	6.5	65	6.9	6.9	0
Burkina Faso.....	1,321	951	71	28	0	144	127	30	7	30	60	31	29
Burundi.....	250	175	0	2.8	7	40	25	5.8	0	19	0	0	0
Cape Verde.....	67	8	NA	19	0	2	38	15	.03	19	4	2	2
Chad.....	628	260	65	6	7.2	123	167	2.6	29	102	33	14	19
Ethiopia.....	6,132	4,832	100	100	0	0	1,100	11.9	253	288	547	238	309
Guinea Bissau.....	120	100	0	0	0	14	6	2	0	NA	4	4	0
Kenya.....	2,712	1,500	225	127	575	410	392	62	90	100	140	120	20
Lesotho.....	372	142	NA	138	10.4	50	32	15	8.7	8	0	0	0
Mali.....	1,470	775	140	25	0	366	164	10	21.3	63	70	35.5	34.5
Mauritania.....	255	20	100	45	0	0	93	24	20.2	24	25	20	5
Mozambique.....	570	81	64	40	20.8	56	308	61	58	129.4	60	37.4	23
Niger.....	1,344	900	100	49	0	120	175	0	66	29	80	42.9	37.1
Rwanda.....	600	337	25	5	4.7	200	28	9	8.4	10.8	0	0	0
Senegal.....	1,279	575	482	40	0	37	145	64	1	80	0	0	0
Somalia.....	593	441	60	100	0	0	10	76	7.9	NA	50	24.5	25.5
Sudan.....	3,485	1,615	78	81	123.5	342	1,245	308	82	280	575	300	275
Tanzania.....	4,400	2,602	124	103	27	1,400	142	5	9.2	104	24	12	12
Zaire.....	1,301	901	NA	NA	0	282	118	85	3.7	NA	30	15	15
Zambia.....	840	558	100	61	45.3	0	86	36	0	50	0	0	0
Contingency.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	150	NA	150
	28,364	17,108	1,951	969 8	301	3,586	4,469	* 822	672	1,401	1,859	903	956

* Primarily for refugee feeding

* Does not include 103,012 MT valued at \$37,784.7 million which is U.S. contribution to WFP program for Sub-Saharan Africa.

Note: Total assistance proposed and to-date does not equal unmet need due to food programmed for refugee feeding and contingency

The CHAIRMAN. Thank you very much, Mr. McPherson.

I would like to ask now the Honorable Chester A. Crocker, Assistant Secretary of State for African Affairs, to testify. Mr. Crocker.

STATEMENT OF HON. CHESTER A. CROCKER, ASSISTANT SECRETARY FOR AFRICAN AFFAIRS, DEPARTMENT OF STATE

Mr. CROCKER. Thank you very much, Mr. Chairman.

We appreciate this opportunity to talk about a subject which is so important, so dramatic, and so moving to all of us. I think as we talk through these numbers and these cold, hard facts this morning, also all of us should bear in mind that we are talking about human life and human dignity, and we are talking about a tragedy which is with us every day as we work on this problem.

As previous witnesses have indicated, the United States has mounted an unprecedented campaign to provide assistance to African countries in their current hour of need. And I might add that equally impressive has been the direct response of millions of Americans from the private sector in this country in generating an additional response well beyond the Government.

Mr. Chairman, my testimony this morning focuses primarily on Africa's economic problems, both short and long term. And I would like to emphasize at the outset that economics is a major, and in some cases the major, part of our relationship with the African governments. They and we both recognize that there is an inseparable relationship between economic development or in its absence, economic decline on the one hand, and politics on the other; and that the United States and the West are uniquely qualified to respond to Africa's needs.

The Ethiopian situation is, of course, the most vivid illustration of the tragedy and of our response. As you know, in recent years the Ethiopian Government has in many respects been openly hostile to us. It has not only contributed to the current problem that country faces with its own misguided agricultural policies, influenced by failed Soviet collectivist practices, but it has until recently sought to hide the dimensions of this tragedy from its own people.

Nevertheless, the United States has steadily expanded its emergency aid to Ethiopia as the situation worsened. When it became clear this past year that we were facing an impending disaster, we told the Ethiopian Government that we were prepared to provide truly massive assistance. I am speaking here of a major humanitarian effort, as has been described, undertaken on humanitarian grounds without regard to politics.

What we do insist upon, Mr. Chairman, is direct and thorough monitoring of our aid to see to it that it gets to those it is meant to get to; and second, we and other members of the international community insist that relief assistance be allowed to reach all those who are at risk.

We are finding that everywhere in Ethiopia, Mr. Chairman, regardless of the government's failure to publicize the full size of our aid program, that people at all levels—officials, people in the streets, people in camps—are coming up to Americans and saying:

Thank you for what you are doing. In sum, in Ethiopia our response is sending a powerful message about America, about its values, its ideals, and its relevance to the African tragedy.

Much has been said about the immediate crisis, but it is also essential that we understand the long-term problems and get a handle on some of the potential remedies. The current African crisis has been magnified by a climatic disaster, as rains have failed or fallen short for several years in a row.

But the roots are deeper, as has been suggested in some previous exchanges. One of the main causes throughout Africa has been a long-term downward trend in per capita food production. The combination of the drop in agricultural output and rapidly rising population, world recession, and declining terms of trade, has left African governments to turn increasingly to borrowing. Today Africa's level of indebtedness is among the world's highest, inhibiting development, limiting essential imports, and yet Africa is becoming even as we sit here more dependent on imported food.

It is that cycle, Mr. Chairman, which must be broken. I could spend much time—I will not, but I could—reviewing the mistakes of past African policies—the development of massive bureaucracies, the construction of industries which did not produce or which produced only at absurdly high costs, the showy status symbols, the deterioration of physical infrastructure, roads, and other things, and most important of all, deliberate reduction of price incentives to the backbone of Africa, which is the African farmer.

Distorted price and marketing mechanisms are at the core of this problem. In the past, donors themselves have compounded the problem by supporting improper priorities, by dispersal of development effort into hundreds of distinct projects, and by imposing their own complex requirements on recipients, which, however well intentioned, often caused major problems of absorption and efficiency.

But what is more important than these problems of the past is to recognize the growing recognition of these errors that exists throughout Africa and the donor community, and the growing awareness of the need for policy changes across the continent. In the past 2 or 3 years we have seen a dramatic shift in attitudes on such complex issues as exchange rates, on measures to rehabilitate infrastructure and export industries, on reducing government regulation and bureaucracy, and on assuring that farmers are rewarded through pricing and marketing reform.

In Zambia, a combination of foreign exchange rate flexibility and wage controls has improved the position of the mining industry. Considerable increases in agricultural prices have boosted production. In Madagascar, liberalization of rice marketing and price increases are boosting production.

In Somalia, Sudan, Zimbabwe, Malawi, Ghana, Mali, Senegal, Rwanda, just to mention a few, similar developments are taking place. Zaire has made massive adjustments in its foreign exchange system, including an 80-percent devaluation. It has eliminated price controls on agricultural production, reduced the government deficit, and reformed many of the parastatals.

The United States, Mr. Chairman, has been in the forefront of those seeking to support such developments in Africa through our

bilateral and multilateral diplomacy with African states, with other donors, and with the international financial institutions. We have been actively promoting new and imaginative responses to Africa's needs.

To assist reform-minded governments to undertake policy reforms, the administration has increasingly geared its assistance to support structural adjustment efforts in agricultural development. Moreover, we have developed two new programs I want to mention briefly to help encourage Africa to regain the path of economic growth.

The first of these, the African economic policy reform program, initiated this past year in fiscal 1985 with \$75 million in economic support funds to provide additional support for those African countries in the process of implementing difficult policy changes, and to improve donor coordination at the country level.

The second, the food for progress initiative which has been referred to already, recently announced by the President, designed to achieve policy reform by using food aid to support African countries which have made commitments to policy reform in the agricultural sector.

Mr. Chairman, I noted earlier that economic issues are at the core of our African policy. Not only is Africa's economic well-being important to us in human terms, it is important because of our interest in African markets and African products. I would point out that in the past 3 years U.S. exports to Africa have fallen 33 percent, 33 percent in 3 years, as a direct result of the African economic crisis.

Moreover, Africa's economic health directly affects its security, and African security and political stability are important factors in our foreign policy. In Africa we are dealing with governments which in many cases are vulnerable and fragile.

Africa is fortunate that it has so many leaders who are truly dedicated to the task of helping their people. But many of these leaders must operate in difficult political, economic, and social environments which, if not handled skillfully, can serve as tinder for those who wish to take advantage of the situation for their own purposes. In such a climate, economic security and political security form a seamless web.

We could point to examples of this syndrome, Mr. Chairman, in many parts of Africa: In the Sahel, where there are threats both economic and political; in the Horn of Africa, where we see an interplay of political and economic deterioration leading to the diversion of resources from development; in southern Africa, where the risk of cross-border violence and polarization is of course a major element of our whole policy thrust there.

In conclusion, Mr. Chairman, I have described and have developed many points this morning in order to dramatize one central fact: Our strength lies in the fact that our goals of economic development, fostered by negotiated solutions, by political stability, are shared by the great majority of Africans and their leaders. We are uniquely relevant, not only as a source of emergency food, but as an example of how economies can work, and Africans increasingly recognize this fact.

It is due to this congruence of basic ideas, supported by our clear capability and willingness to aid Africa in its time of need, when contrasted with the East's inability to do so and unwillingness to do so, which provides important opportunities and challenges for us in the months and years ahead.

Thank you, Mr. Chairman.

[Mr. Crocker's prepared statement follows:]

PREPARED STATEMENT OF HON. CHESTER A. CROCKER

DURING THE PAST FEW MONTHS, THE AMERICAN PEOPLE HAVE BEEN EXPOSED TO THE CURRENT HUMAN TRAGEDY UNFOLDING IN AFRICA. FROM THEIR OWN LIVING ROOMS, AMERICANS HAVE WATCHED WITH HORROR IMAGES OF EMACIATED MEN, WOMEN, AND CHILDREN IN THE FEEDING CAMPS -- MANY OF THEM SURVIVORS OF THE LONG JOURNEYS ON FOOT THROUGH MOUNTAINS AND OTHER ROUGH TERRAIN. MANY OTHERS DID NOT MANAGE TO SURVIVE THE ARDUOUS JOURNEY TO REACH THE CAMPS, DYING ALONG THE WAY. OF THE SURVIVORS, MANY STILL WILL DIE OF MALNUTRITION AND DISEASES WHICH FIND EASY PREY IN SUCH WEAKENED HUMANITY; OTHERS, ESPECIALLY CHILDREN, WILL SUFFER PERMANENT BRAIN DAMAGE. LITERALLY THOUSANDS HAVE PERISHED -- WE DO NOT KNOW HOW MANY. WE ESTIMATE THAT SOME 14 MILLION AFRICANS REMAIN AT RISK FROM THE CURRENT DROUGHT AND NEED URGENT ASSISTANCE IN TERMS OF FOOD, MEDICAL CARE, AND SHELTER IF THEY ARE TO SURVIVE.

MY TESTIMONY BEFORE YOU TODAY FOCUSES PRIMARILY ON AFRICA'S ECONOMIC PROBLEMS, SHORT AND LONG TERM. THIS MAY SURPRISE SOME WHO DO NOT EXPECT SENIOR STATE DEPARTMENT OFFICIALS TO BE SO INVOLVED IN HUMANITARIAN AND DEVELOPMENT ASSISTANCE. IN FACT, ECONOMICS IS A MAJOR, IN SOME CASES THE MAJOR, PART OF OUR RELATIONSHIP WITH AFRICAN GOVERNMENTS.

AFRICAN GOVERNMENTS ARE STRUGGLING WITH BASIC ISSUES OF SURVIVAL AND, THEN, OF DEVELOPMENT. THEY, AND WE, RECOGNIZE THAT THERE IS AN INSEPARABLE RELATIONSHIP BETWEEN ECONOMICS AND POLITICS AND THAT THE UNITED STATES AND THE WEST ARE UNIQUELY QUALIFIED TO RESPOND TO AFRICA'S NEEDS.

THE UNITED STATES HAS MOUNTED AN UNPRECEDENTED CAMPAIGN TO PROVIDE ASSISTANCE TO AFRICA IN ITS CURRENT HOUR OF NEED. SINCE OCTOBER OF LAST YEAR, WE HAVE COMMITTED MORE THAN A QUARTER OF A BILLION DOLLARS TO SEND OVER 600,000 TONS OF EMERGENCY FOOD AND OTHER TYPES OF ASSISTANCE TO AFRICA. IF WE ADD OUR REGULAR AID FOOD PROGRAMS, THEN OUR TOTAL FOOD ASSISTANCE FOR AFRICA IS EVEN LARGER -- ALMOST 600 MILLION DOLLARS THIS FAR THIS FISCAL YEAR. I THINK WE CAN BE JUSTIFIABLY PROUD OF WHAT WE HAVE BEEN ABLE TO ACCOMPLISH IN SUCH A SHORT PERIOD OF TIME. PETER MCPHERSON HAS GONE INTO MUCH MORE DETAIL ON THIS.

EQUALLY IMPRESSIVE HAS BEEN THE DIRECT RESPONSE OF THE AMERICAN PEOPLE AND THE PRIVATE SECTOR. THROUGH GENEROUS CONTRIBUTIONS TO PRIVATE VOLUNTARY AGENCIES, MANY THOUSANDS OF

ADDITIONAL LIVES HAVE BEEN AND CONTINUE TO BE SAVED. VOLUNTEERS FOR THESE AGENCIES ARE DIRECTLY INVOLVED IN DISTRIBUTING FOOD, MEDICINES, CLOTHING, AND SHELTER AND CARING FOR DROUGHT VICTIMS IN THE MOST REMOTE PARTS OF AFRICA, ENDURING EXTREME HARDSHIPS AND EVEN RISKING THEIR OWN LIVES. SUCH HUMANITARIAN ASSISTANCE IS IN THE BEST TRADITION OF AMERICA AND THE VALUES FOR WHICH AMERICA STANDS. AND WHEN I SAY VALUES, I MEAN BASIC HUMAN VALUES OF RESPECT FOR ONE'S FELLOW MAN, FOR THE INDIVIDUAL, AND ULTIMATELY LIFE. WE HAVE NOT ALLOWED POLITICAL OR IDEOLOGICAL DIFFERENCES WITH ANY GOVERNMENT TO WEAKEN OUR DETERMINATION TO HAVE ASSISTANCE REACH THOSE IN NEED.

THE ETHIOPIAN SITUATION IS THE MOST VIVID ILLUSTRATION OF THIS POLICY, AND OF ITS IMPORTANCE TO OUR OBJECTIVES IN AFRICA. FULLY HALF OF THE EMERGENCY ASSISTANCE WE HAVE PROVIDED TO AFRICA SINCE THIS FISCAL YEAR HAS BEEN TO ETHIOPIA. WE ARE THE LARGEST DONOR TO THE EMERGENCY THERE. WE HAVE ALSO BEEN AT THE FOREFRONT IN GALVANIZING INTERNATIONAL COORDINATION AND ADDITIONAL CONTRIBUTIONS TO DEAL WITH WHAT IS ONE OF THE GREATEST HUMAN TRAGEDIES OF OUR TIME. WE HAVE DONE THIS IN A COUNTRY WHOSE GOVERNMENT OVER SEVERAL YEARS HAS BEEN OPENLY HOSTILE TO US, AND WHICH HAS NOT ONLY CONTRIBUTED TO THE PROBLEM WITH POOR AGRICULTURAL POLICIES, INFLUENCED BY FAILED SOVIET COLLECTIVIST PRACTICES, BUT WHICH UNTIL RECENTLY SOUGHT

TO HIDE THE MAGNITUDE OF THIS DISASTER FROM ITS OWN PEOPLE. NEVERTHELESS, THE US HAS STEADILY EXPANDED EMERGENCY AID TO ETHIOPIA AS THE SITUATION WORSENERD, AND THE EMERGENCY TURNED INTO A MORE MASSIVE DISASTER. WE TOLD THE ETHIOPIAN GOVERNMENT THAT WE WERE PREPARED TO PROVIDE TRULY MASSIVE ASSISTANCE WITHOUT REGARD TO POLITICS. WHAT WE DO INSIST UPON IS DIRECT AND THOROUGH MONITORING OF THAT AID. LIKEWISE, WE AND THE OTHER MEMBERS OF THE INTERNATIONAL COMMUNITY INSIST THAT RELIEF ASSISTANCE BE ALLOWED TO REACH ALL THOSE WHO ARE AT RISK.

I BELIEVE THAT THE US RESPONSE SAYS VOLUMES TO THE ETHIOPIAN PEOPLE, AND TO ALL OF AFRICA. IT SPEAKS TO OUR HUMANITARIANISM, TO OUR DIRECT RELEVANCE TO AFRICA'S MOST PRESSING PROBLEMS, AND TO THE FAILURES OF COLLECTIVIST STRATEGIES AND RELIANCE ON SOVIET MILITARY AID WHEN IT IS THE ECONOMY AND THE POOR WHO NEED HELP. EVERYWHERE IN ETHIOPIA, REGARDLESS OF THE GOVERNMENT'S FAILURE TO PUBLICIZE THE FULL MAGNITUDE OF OUR AID, PEOPLE AT ALL LEVELS--OFFICIALS, PEOPLE ON THE STREET, PEOPLE IN THE CAMPS--ARE COMING UP TO AMERICANS AND SAYING "THANK YOU FOR WHAT YOU ARE DOING." IT IS A STRONG AND POWERFUL MESSAGE. WE THINK IT IS THE BEST OF AMERICA, AND THE STRONGEST AND MOST TELLING RESPONSE WE COULD MAKE TO THE YEARS OF SOVIET ARMS, SOVIET IDEOLOGY, AND SOVIET INDIFFERENCE TO POVERTY THAT HAVE DOMINATED ETHIOPIA. THE MESSAGE MUST BE OBVIOUS TO THE ETHIOPIAN LEADERSHIP.

I WOULD LIKE TO DEVOTE THE BULK OF MY PRESENTATION TO THREE ISSUES--WHAT ARE THE LONGER TERM CAUSES OF AFRICA'S ECONOMIC DIFFICULTIES (THE AFRICAN ECONOMIC CRISIS), WHAT IS AND CAN BE DONE ABOUT IT AND ARE THERE ANY SIGNS OF SUCCESS AND, FINALLY, WHERE DO THESE ECONOMIC PROBLEMS FIT INTO OVERALL US FOREIGN POLICY INTERESTS AND ACTIVITIES IN AFRICA.

TURNING TO THE CAUSES OF THE CRISIS--BEYOND THAT OF THE DROUGHT--WHAT IS REMARKABLE IS THE DEGREE OF CONSENSUS WHICH HAS DEVELOPED. BEFORE THE DROUGHT, CHILD MORTALITY IN SUB-SAHARAN AFRICA WAS DOUBLE THAT OF ALL DEVELOPING COUNTRIES. OVER 20 PERCENT OF AFRICA'S POPULATION EATS LESS THAN THE MINIMUM NEEDED TO SUSTAIN GOOD HEALTH. THE NUMBER OF SEVERELY HUNGRY AND MALNOURISHED PEOPLE EXCEEDS 100 MILLION PEOPLE--ALL OF THIS PRIOR TO THE DROUGHT. WHY?

ONE REASON CLEARLY IS THE DOWNWARD TREND IN PER CAPITA FOOD PRODUCTION. AFRICA IS THE ONLY REGION IN THE WORLD WHERE PER CAPITA FOOD PRODUCTION HAS DECLINED OVER THE PAST TWO DECADES -- A COMBINATION OF DROP IN PRODUCTIVITY AND RAPIDLY RISING POPULATION. AFRICA'S FOOD DEPENDENCY ON OUTSIDE SOURCES HAS BEEN GROWING AT AN ALARMING PACE, WITH AFRICAN COMMERCIAL IMPORTS OF GRAIN INCREASING AT A RATE OF NINE PERCENT/YEAR DURING THE PAST TWENTY YEARS.

AFRICA CURRENTLY IMPORTS OVER 10 MILLION TONS OF CEREALS (LEAVING ASIDE DROUGHT EMERGENCY NEEDS). AND IF CURRENT TRENDS CONTINUE, THIS DEFICIT WILL INCREASE MARKEDLY.

AGRICULTURE IS THE MAJOR FACTOR IN MOST AFRICAN COUNTRIES' ECONOMIES AND IN 1981, 82, AND 83 PER CAPITAL GDP IN AFRICAN COUNTRIES DECLINED BY 4%, 3.3% AND 3.8% RESPECTIVELY. 1984 DATA ARE NOT AVAILABLE BUT THEY ARE CERTAIN TO BE SHARPLY NEGATIVE AS WELL.

OVER RECENT YEARS AS AFRICAN ECONOMIES DECLINED, THESE GOVERNMENTS TURNED INCREASINGLY TO BORROWING. FROM 1972 TO 1982 MEDIUM AND LONG TERM DEBT INCREASED BY AN ANNUAL AVERAGE OF 22%. DEBT SERVICE RATIOS (THE RELATIONSHIP BETWEEN DEBT PAYMENTS DUE AND EXPORTS OF GOODS AND SERVICES) WORSENER AS WELL, WITH RATIOS OF ANYWHERE FROM 30 TO 80% OR MORE PREVAILING IN SOME COUNTRIES. THERE ARE VERY FEW COUNTRIES LEFT IN AFRICA WHICH DO NOT HAVE DEBT PROBLEMS OF A MAJOR MAGNITUDE. THIS IS REFLECTED IN THE ACTIVITIES OF THE PARIS AND LONDON CLUB--THE INTERNATIONAL FORA WHERE PUBLIC AND PRIVATE DEBTS ARE RESCHEDULED. TEN OF THE FOURTEEN PARIS CLUB RESCHEDULINGS IN 1984 WERE FOR AFRICAN COUNTRIES.

AGAIN ONE MUST ASK WHY. WHY HAVE ECONOMIC CONDITIONS DETERIORATED AS FAR AS THEY HAVE? THERE IS, OF COURSE, NO SINGLE CAUSE. DROUGHT, POOR WORLD COMMODITY PRICES AND A HOST OF OTHER FACTORS WHICH CANNOT BE "BLAMED" ON ANYONE HAVE PLAYED MAJOR ROLES. NOR IS THE ISSUE ONE OF "BLAME" BUT RATHER OF ANALYSIS SO THAT WE CAN JOINTLY WORK TOWARDS "SOLUTIONS."

I BELIEVE THAT A CONSENSUS, IN AFRICA, EUROPE AND NORTH AMERICA, IN INTERNATIONAL INSTITUTIONS, AND, EVEN, AT LAST, IN ACADEMIA, HAS DEVELOPED THAT THE ROOTS OF AFRICA'S PROBLEMS CONTINUE TO BE INEFFICIENT USE OF RESOURCES. BY THIS I DO NOT MEAN ONLY INEFFICIENT AFRICAN POLICIES, BUT ALSO INEFFICIENT POLICIES OF DONORS. DONORS HAVE INSISTED ON IMPOSING THEIR OWN REQUIREMENTS ON RECIPIENTS WHICH, HOWEVER WELL INTENTIONED, CAUSE MAJOR PROBLEMS OF ABSORPTION AND EFFICIENT ADMINISTRATION. A FEW EXAMPLES--IN MALAWI 50 DONORS HAVE CONTRIBUTED TO 188 PROJECTS, IN LESOTHO 61 DONORS TO 321 PROJECTS, AND ZAMBIA 69 DONORS TO 614 PROJECTS. THIS STRAINS THE ABSORPTIVE CAPACITY OF RECIPIENT COUNTRIES.

I COULD SPEND CONSIDERABLE TIME REVIEWING THE MISTAKES OF PAST AFRICAN POLICIES--THE DEVELOPMENT OF MASSIVE BUREAUCRACIES, THE CONSTRUCTION OF INDUSTRIES WHICH DID NOT PRODUCE OR PRODUCED ONLY AT ABSURDLY HIGH COSTS, THE SHOWY STATUS SYMBOLS, THE DETERIORATION OF PHYSICAL INFRASTRUCTURE AND, MOST IMPORTANT, THE DELIBERATE REDUCTION OF PRICE INCENTIVES TO THE BACKBONE OF AFRICA, THE FARMER. IT IS PERHAPS UNDERSTANDABLE THAT PRICES HAVE BEEN RESTRICTED FOR DOMESTIC CONSUMPTION TO FAVOR THE URBAN POPULATIONS WHICH LARGELY DETERMINE THE CONTINUATION OF A REGIME OR THAT EXPORT EARNINGS HAVE NOT BEEN RETURNED TO THOSE WHO CREATED THEM. UNDERSTANDABLE IN POLITICAL TERMS, BUT DISASTROUS ECONOMICALLY.

WHAT IS FAR MORE IMPORTANT IS THE GROWING RECOGNITION OF THESE ERRORS AND THE POLICY CHANGES WHICH ARE NOW OCCURRING THROUGHOUT AFRICA. IN THE PAST 2-3 YEARS WE HAVE SEEN A DRAMATIC SHIFT IN ATTITUDES ON SUCH ISSUES AS EXCHANGE RATES, ON MEASURES TO REHABILITATE OF INFRASTRUCTURE AND EXPORT INDUSTRIES, ON REDUCING GOVERNMENT REGULATION AND BUREAUCRACY AND ON ASSURING THAT FARMERS ARE REWARDED THROUGH PRICING AND MARKETING REFORM.

WE ARE SO USED TO HEARING ABOUT NEGATIVE AFRICAN EVENTS I WOULD LIKE TO TAKE A MOMENT TO CITE SOME POSITIVE DEVELOPMENTS, AND THEY ARE WIDESPREAD. IN ZAMBIA A COMBINATION OF FOREIGN EXCHANGE RATE FLEXIBILITY AND WAGE CONTROLS HAVE IMPROVED THE POSITION OF THE MINING INDUSTRY. CONSIDERABLE INCREASES IN AGRICULTURAL PRICES HAVE STIMULATED PRODUCTION. IN MADAGASCAR LIBERALIZATION OF RICE MARKETING AND PRICE INCREASES HAVE BOOSTED PRODUCTION. IN SOMALIA, SUDAN, ZIMBABWE, MALAWI, GHANA, MALI, SENEGAL, RWANDA, JUST TO MENTION A FEW, SIMILAR DEVELOPMENTS HAVE TAKEN PLACE.

I WOULD LIKE TO STRESS TWO ASPECTS OF THESE DEVELOPMENTS. FIRST, THEY ARE THE PRODUCT OF AFRICANS WHO MADE THE DECISION THAT THESE POLICY CHANGES ARE IN THEIR OWN INTEREST. IN SOME CASES THEY INVOLVED NEGOTIATIONS WITH BILATERAL AND MULTILATERAL DONORS. IN OTHERS THERE WAS NO SUCH INVOLVEMENT. SECOND, THESE CHANGES DO NOT REDUCE THE NEED FOR FOREIGN ASSISTANCE. IN FACT, THEY NECESSITATE AND WARRANT OUR SUPPORT WHICH CAN INCREASINGLY BE USED TO GOOD AFFECT.

A GOOD EXAMPLE IS ZAIRE. ZAIRE HAS MADE MASSIVE ADJUSTMENTS IN ITS FOREIGN EXCHANGE SYSTEM, INCLUDING A HUGE DEVALUATION OF 80% IN SEPTEMBER 1965. IT HAS ELIMINATED PRICE CONTROLS ON AGRICULTURAL PRODUCTION; REDUCED THE GOVERNMENT'S

BUDGET DEFICIT IN 1983 BY 30 PERCENT; AND INITIATED REFORM OF ZAIRE'S PARASTATALS. IT HAS TAKEN ACTION TO STIMULATE DOMESTIC AND FOREIGN INVESTMENT, INCLUDING THE SIGNING OF A BIT WITH US. AND INDEED THERE HAS BEEN A RESPONSE. HOWEVER, OVER HALF OF ZAIRE'S BUDGET MUST BE SPENT ON DEBT REPAYMENTS, DESPITE GENEROUS DEBT RESCHEDULING. WE MUST ASSIST AFRICANS TO DEMONSTRATE THAT POLICY REFORM LEADS TO REAL ECONOMIC GROWTH.

THE UNITED STATES HAS BEEN IN THE FOREFRONT OF THOSE SEEKING TO SUPPORT SUCH AFRICAN DEVELOPMENTS. NOT ONLY HAVE US ASSISTANCE LEVELS--LEAVING ASIDE GENEROUS EMERGENCY ASSISTANCE TO MEET DROUGHT AND FAMINE--INCREASED FROM \$787 IN 1981 TO OVER \$1 BILLION IN 1985 BUT ALSO WE HAVE INTRODUCED INNOVATIONS IN POLICY. DESPITE BUDGET STRINGENCY, THEY WILL INCREASE FURTHER IN THE FY86 BUDGET PROPOSALS WHICH WILL COME TO THE CONGRESS NEXT MONTH.

EQUALLY IMPORTANT, WE HAVE BEEN ACTIVELY PROMOTING NEW AND IMAGINATIVE RESPONSES TO AFRICA'S NEEDS. TO ASSIST REFORM-MINDED GOVERNMENTS TO UNDERTAKE DESIRABLE REFORMS, THE ADMINISTRATION CAME UP WITH TWO PROGRAMS:

(1) THE AFRICAN ECONOMIC POLICY REFORM PROGRAM, AN INITIATIVE FUNDED WITH \$75 MILLION IN ECONOMIC SUPPORT FUNDS IN FISCAL YEAR 1985 WHICH HAS THE FOLLOWING MAIN OBJECTIVES:

-- FIRST, TO PROVIDE ADDITIONAL SUPPORT FOR THOSE AFRICAN COUNTRIES WHICH ARE IN THE PROCESS OF IMPLEMENTING POLICY CHANGES OR HAVE INDICATED A WILLINGNESS AND ABILITY TO ESTABLISH A GROWTH-ORIENTED POLICY FRAMEWORK; AND

-- SECOND, TO STRENGTHEN THE INTERNATIONAL ASSISTANCE FRAMEWORK FOR AFRICA BY IMPROVED MULTILATERAL AND BILATERAL DONOR COORDINATION AT THE COUNTRY LEVEL.

ALTHOUGH THIS POLICY REFORM PROGRAM IS STILL IN ITS INITIAL STAGES, PRELIMINARY INTERNATIONAL REACTION TO THIS NEW INITIATIVE HAS BEEN EXTREMELY FAVORABLE. WE ARE IN THE PROCESS OF IDENTIFYING AFRICAN COUNTRIES FOR THIS INITIATIVE, AS WELL AS DONORS OR INTERNATIONAL FINANCIAL INSTITUTIONS WHICH MAY WISH TO PROVIDE COFINANCING FOR APPROPRIATE POLICY REFORM PROGRAMS.

(2) THE "FOOD FOR PROGRESS" INITIATIVE RECENTLY ANNOUNCED BY THE PRESIDENT IS ALSO DESIGNED AT ACHIEVING POLICY REFORM BUT USING OTHER MEANS. IN ESSENCE, THIS INITIATIVE WOULD USE FOOD AID TO SUPPORT AFRICAN COUNTRIES WHICH HAVE MADE COMMITMENTS TO REFORM IN THE KEY AGRICULTURAL SECTOR, STRESSING

MARKET APPROACHES IN AGRICULTURAL PRICING, MARKETING, AND INPUT SUPPLY AND DISTRIBUTION. THE NECESSARY LEGISLATIVE FRAMEWORK AND FUNDING SOURCES FOR THIS LATTER PROGRAM ARE IN THE PROCESS OF BEING DEVELOPED.

MR. CHAIRMAN, I NOTED EARLIER THAT ECONOMIC ISSUES ARE AT THE CORE OF OUR AFRICA POLICY. AFRICA'S PRINCIPAL GOAL IS DEVELOPMENT. THE LEADERS OF THE CONTINENT ARE OBLIGED BY BOTH INTEREST AND NECESSITY TO FOCUS ON THE CHALLENGE OF ECONOMIC SURVIVAL AND ECONOMIC PROGRESS. WE ARE PLEASED TO COOPERATE WITH THEM IN THIS EFFORT. NOT ONLY IS AFRICA'S ECONOMIC WELLBEING IMPORTANT TO US IN HUMAN TERMS, BUT ALSO BECAUSE THAT WELLBEING IS DIRECTLY RELATED TO AFRICA'S SECURITY. AND AFRICA'S SECURITY AND POLITICAL STABILITY ARE IMPORTANT FACTORS IN OUR FOREIGN POLICY, BECAUSE OUR OWN NATIONAL INTERESTS ARE AFFECTED BY THEM.

FOR EXAMPLE, AFRICA'S ECONOMIC CRISIS HAS HAD A NEGATIVE IMPACT ON U.S. TRADE. BETWEEN 1981 AND 1983, U.S. EXPORTS TO AFRICA DECLINED BY ONE THIRD. IN ADDITION, THERE ARE LARGER, POLITICAL ISSUES WHICH ALSO AFFECT US.

AFRICA IS BOTH PARTICIPANT IN AND RECIPIENT OF PRESSURES AND DYNAMICS OF CENTRAL IMPORTANCE TO THE GLOBAL BALANCE. WE ARE FUNDAMENTALLY WRONG IF WE PRESUME THAT AFRICAN CONFLICTS AND PROBLEMS CAN BE EXPRESSED PRIMARILY IN EAST-WEST TERMS, BUT WE WOULD BE FOOLHARDY TO IGNORE THE REALITY OF INTERNATIONAL COMPETITION.

IN AFRICA, WE ARE DEALING WITH GOVERNMENTS WHICH IN MANY WAYS ARE VULNERABLE AND FRAGILE. TWO DECADES AFTER INDEPENDENCE, THESE GOVERNMENTS ARE CONFRONTED WITH DIFFICULT POLICY CHOICES AND ALMOST OVERWHELMING ECONOMIC OBSTACLES WHICH WOULD TRY THE PATIENCE AND ADMINISTRATIVE CAPACITY OF MORE EXPERIENCED, BETTER ESTABLISHED GOVERNMENTS ELSEWHERE IN THE WORLD. AFRICA IS FORTUNATE IN THAT IT HAS MANY LEADERS WHO ARE TRULY DEDICATED TO THE TASK OF HELPING THEIR PEOPLE. BUT MANY OF THESE LEADERS MUST OPERATE IN HIGHLY CHARGED POLITICAL, SOCIAL, AND ECONOMIC ENVIRONMENTS WHICH, IF NOT HANDLED CORRECTLY, CAN SERVE AS TINDER FOR THOSE WHO WISH TO TAKE ADVANTAGE OF THE SITUATION FOR THEIR OWN GEOPOLITICAL OR IDEOLOGICAL ADVANTAGE.

IT IS THIS CONNECTION BETWEEN THE ECONOMIC CRISIS, THE DECISIONS THAT MUST BE MADE TO ADDRESS IT, THE POLITICAL VULNERABILITY OCCASIONED BY THE HARD DECISIONS, AND THE SELF-SERVING INTRUSION OF THOSE WHO WISH US AND OUR FRIENDS IN AFRICA ILL WILL THAT MANDATES OUR CONTINUED CONCERN AND HELP TO STRUGGLING AFRICAN STATES. IT IS THIS TWISTED KNOT OF ECONOMIC AND POLITICAL ISSUES THAT GIVES AFRICA'S ECONOMIC MALAISE A POLITICAL SALIENCY WHICH WE MUST ADDRESS JUST AS WE ARE CALLED UPON, BECAUSE OF OUR HUMANITARIAN INSTINCTS, TO SPEAK TO THE DRAMA OF HUMAN SUFFERING.

FOR EXAMPLE, IN THE SAHEL, WE MUST DEAL WITH A NUMBER OF DESPERATELY POOR STATES WHICH HAVE BEEN REELING UNDER THE EFFECT OF CONTRARY CLIMATIC CONDITIONS FOR A DECADE OR MORE. IN ADDITION, THESE COUNTRIES MUST CONFRONT AN UNPREDICTABLE AND HOSTILE LIBYAN GOVERNMENT WHICH HAS ALREADY OCCUPIED HALF OF CHAD AND HAS MADE CLEAR THAT IT HAS DISRUPTIVE DESIGNS FOR OTHER SAHELIAN COUNTRIES.

THE DESPERATE POVERTY OF THE HORN OF AFRICA, CONFRONTED TODAY WITH A MAJOR DROUGHT, IS MADE EVEN MORE COMPLICATED BY REGIONAL POLITICAL TENSIONS WHICH ADD TO THE FLOW OF REFUGEES AND DIVERT RESOURCES WHICH THE COUNTRIES OF THE REGION COULD BE BETTER UTILIZING IF THEY FELT MORE SECURE WITH THEIR NEIGHBORS. HERE AGAIN, THERE IS AN INEXTRICABLE LINK BETWEEN POLITICAL AND ECONOMIC ISSUES WHICH REQUIRES THE ATTENTION OF OUR DIPLOMACY.

THE NATIONS OF SOUTHERN AFRICA ARE CONFRONTED WITH A COMBINATION OF INTERRELATED CHALLENGES: THE IMPERATIVE OF NAMIBIAN INDEPENDENCE; THE NEED FOR SECURE BORDERS FREE FROM ATTACKS MOUNTED IN NEIGHBORING STATES; AND THE REQUIREMENT FOR A MORE HUMANE AND EQUITABLE POLITICAL AND SOCIAL SYSTEM IN SOUTH AFRICA. OUR POLICY OF CONSTRUCTIVE ENGAGEMENT MANDATES THAT WE WORK WITH THE PARTIES OF THE REGION TOWARDS THESE GOALS.

IN OUR EFFORT, WE DEAL WITH THE REALITY OF STATES WHICH ARE ECONOMICALLY INTERDEPENDENT AND WHICH MUST CONFRONT THE CHALLENGE OF ECONOMIC GROWTH. THAT INTERDEPENDENCE HAS POLITICAL IMPLICATIONS AS WELL. ECONOMICALLY VIABLE AND PROGRESSING SOUTHERN AFRICAN STATES WILL BE BETTER ABLE TO INFLUENCE THE COURSE OF EVENTS IN THEIR OWN REGION TOWARD

NEGOTIATED SOLUTIONS AND PEACEFUL CHANGE. ECONOMIC GROWTH CAN LEAD IN SOUTHERN AFRICA AS ELSEWHERE TO A REDUCTION OF REGIONAL TENSIONS, INCREASED FOCUS ON PRESSING DOMESTIC ISSUES, AND PEACE RATHER THAN VIOLENCE. THIS APPLIES AS MUCH TO SOUTH AFRICA AS TO ITS NEIGHBORS SINCE THAT RELATIVELY RICH COUNTRY IS MOST LIKELY TO ADDRESS THE IMPERATIVES OF CHANGE TOWARD A JUST SOCIETY AT A TIME OF GROWTH AND EXPANDED ECONOMIC OPPORTUNITY FOR ALL. ON THE OTHER HAND, A CLIMATE OF POLARIZATION AND VIOLENCE WILL ONLY INHIBIT ECONOMIC GROWTH THROUGH THE REGION.

IN SUM, MR. CHAIRMAN, IN MANY PARTS OF AFRICA WE ARE CONFRONTED BY INTERRELATED SETS OF ECONOMIC AND POLITICAL PROBLEMS WHICH REQUIRE THAT WE DEVOTE OUR ATTENTION AND CONCERN TO THE ECONOMIC ISSUES AS A WAY OF FURTHERING OUR OWN NATIONAL INTERESTS.

THERE CAN BE NO DOUBT THAT THESE INTERESTS ARE THREATENED BY A WIDE VARIETY OF FACTORS RANGING FROM ECONOMIC DISASTERS TO POLITICAL WEAKNESSES AND RIVALRIES TO OUTSIDE INTERFERENCE BY COUNTRIES UNFRIENDLY TO US AND OUR CONCERNS. OUR STRENGTH, HOWEVER, LIES IN THE FACT THAT OUR GOALS OF ECONOMIC DEVELOPMENT, FOSTERED BY PEACE AND POLITICAL STABILITY, ARE SHARED BY THE GREAT MAJORITY OF AFRICANS AND THEIR LEADERS, REGARDLESS OF IDEOLOGY OR RELATIONS WITH THE UNITED STATES. IT IS DUE TO THIS CONGRUENCE OF BASIC IDEAS, SUPPORTED BY THE WEST'S CLEAR CAPABILITY AND WILLINGNESS TO AID AFRICA ECONOMICALLY AND ENABLE IT TO DEVELOP, AND THE EAST'S UNWILLINGNESS OR INCAPABILITY TO DO SO, WHICH PROVIDES ADDITIONAL OPPORTUNITIES AND CHALLENGES FOR US TO CONTEMPLATE.

The CHAIRMAN. Thank you very much, Mr. Crocker.

Let me ask the two of you to enlighten us further about your understanding of the Ethiopian situation. Senator Glenn began this inquiry in his questions of Secretary Amstutz, but the mention by Mr. McPherson of the press story on the Australian shipment which has been impounded sort of draws us to a point.

There have been allegations for some time, apparently from refugees streaming out of Ethiopia in a long trek and often through night marches, into Sudan, that they have been fired upon by the Ethiopian Government. So that the question is not apparently simply this first instance of a 6,000-ton shipment being impounded that was headed for persons who were out of sorts with the Ethiopian Government.

But apparently the degree of civil war or confrontation going on is severe, and the American people find it very difficult to understand how a government could be starving out some of its citizens. There are millions, apparently, who are being starved out, and a large part of the problem apparently in Eritrea and Tigray provinces is apparently caused by the Ethiopian Government itself.

Can you give any further enlightenment as to how much of the problem that we're looking at in Ethiopia is caused by the government's difficulties with so-called rebels or the civil war problem itself, and to what extent the problem in the Sudan now becomes an after-effect of this civil war in Ethiopia as refugees come into this 4-million person starvation group that you have just mentioned?

Mr. McPHERSON. I am sure Mr. Crocker will have some comments as well, but there is no question in my mind that the conflict is a major reason why we have not been able to deal fully with the situation in Ethiopia and in Mozambique, that in fact the conflict has made it in both countries—where last year the situation was probably worse in Mozambique, the conflicts in those countries have made it particularly difficult to move food around and to get the job done.

In Ethiopia today, we are not able to move food easily, sometimes not at all. We have called for some time now for something that we call safe passage of food vehicles. The world has known for decades of a system of medical vehicles, Red Cross marked vehicles, to move wherever, without interference by conflicting parties. We need something like that for food, and that situation frankly has been a problem, both in terms of the dissidents as well as the Government of Ethiopia. Neither have fully respected vehicles which have had food in them.

We know of at least one situation where groups of migrants were attacked—we do not know exactly the motives; some argued it was a mistake—attacked by the Ethiopian Government military. We do not know all the details of how that actually occurred, except it did occur.

We hear stories, like you hear, of people not going to camps because they are afraid they are going to be picked up and resettled to the south, stories of people not getting food if they have not readily agreed to go south as refugees from the north to the south within Ethiopia.

There are a lot of problems. Now, we do not have as many conclusions as we have anecdotes and problems. But I would say to you that it is unquestionably the case that the conflict in Ethiopia has meant the deaths of many thousands of citizens by way of starvation.

Mr. CROCKER. Mr. Chairman, I might just add that there is an interesting situation here, obviously with many complex causes, weather being one of them and bad failed policies being another. There is also the fact of a continuing and very major set of insurgency conflicts inside Ethiopia and the determination on both sides, as has been said, to pursue those wars in the midst of this humanitarian emergency.

We are insisting on the point, and we are not alone in doing so—I think all the major donors feel this way—that it is essential that it be possible to get food to all those who are at risk. We are at the same time making clear that we are not raising the slightest question about a fundamental principle in our policies toward the Horn of Africa, which is respect toward the territorial integrity of Ethiopia. That is not the issue.

What we are saying is that there must be means to get food to all those who are at risk, whether it is through safe passage or cross-border feeding programs of various kinds. I would add the point that it is a striking phenomenon right now that refugees are streaming into Sudan, which is a nation with a proud history of receiving refugees. There are now over 600,000 there. They are leaving drought, they are trying to get away from the war, they are trying to get away from the government's resettlement program.

The CHAIRMAN. Well, in the event that all donors are insisting on nonrisk—apparently that insistence is not being respected—what remedies are there available diplomatically for the Austrians or for us or for others, given this obviously pointed instance, to make known that insistence, so that literally the rules of the game begin to be followed?

Mr. CROCKER. Mr. Chairman, we are perhaps not in the best place to bring influence to bear directly, given the strains and the difficulties that exist in our own bilateral relationship with the Government of Ethiopia. But as I said, we are not alone in feeling this way, and we are making our views known, which are widely shared internationally with others.

It is a question of discussion and persuasion in Ethiopia. We are also going to be urging and have been urging—and Mr. McPherson may want to expand on this—that the U.N. Secretary General play a role in this in terms of calling for such a message to come clearly from the international community and from the United Nations.

Mr. McPHERSON. We think the Secretary General was probably one of the very best parties to carry this. He has been interested in the safe passage issue in the past, safe passage for food vehicles. And this latest instance in the impoundment of food I think is another matter which he could use to go forward.

We frankly are very uncomfortable with the situation, where we are put in a position of do we continue to feed people? Our only tool, I presume, might be somehow to hold back something that we are doing, but to hold back what we are doing would clearly hurt innocent starving people.

The CHAIRMAN. I am certain the American people agree with that judgment. But I think the frustration of the American people also comes down to the fact that if this type of impoundment continues while we are trying to save starving people, coupled with the agricultural policies which you have described, which as I understand them are a movement toward state farms, dispossession of land of efficient farmers, and a general decline of agricultural production, there will come a time down the road—and I suspect Ethiopia ought to be on notice of this—that the patience of the rest of the world is likely to decline.

In short, if people are determined to fight a war and starve each other out, and second to go into disastrous agricultural policies in which there is no hope of alleviation of famine, at some stage we will lose patience. Most people in this country do not understand how people could starve each other to begin with. It is beyond their comprehension. They will also begin to ask why we ought to be involved with a government that shows no sign whatever of adopting policies to help itself.

Now, you pointed out that we are not in the best position, we are not really very simpatico with Ethiopia. But at what point do we become assertive and simply indicate, whether we are on good terms or not, that the country is starving, is literally going down the drain, and begin to amalgamate other nations with us, with or without the Secretary General?

In other words, it just seems to me presently, when a nation is literally going under and we are providing half of the assistance to save it, that our leverage is considerable.

Mr. MCPHERSON. Well, I think that, frankly, statements like yours this morning in my judgment, and I believe Mr. Crocker's, are helpful. We appreciate them and fundamentally we agree with them.

As I said a few moments ago, we think that starving people simply cannot be pawns. We are stating that consistently and, frankly, I believe quite forcefully to the Ethiopian Government. I think we have to let this thing play out more, but the statements from people such as you on this that we think are complementary to what we are saying are indeed, at least in my judgment, helpful.

The CHAIRMAN. Thank you.

Senator Kassebaum, do you have any questions?

Senator KASSEBAUM. Well, one thing that crossed my mind in reading about this incident, particularly in light of the fact that the Ethiopian Government was asked if the shipments had not gone on through to the so-called dissidents and in the areas of the north, and they said: Not through our ports.

I would be interested in hearing the testimony of those who are working with the private voluntary organizations. Certainly, I do not know what we would do in all of these nations without assistance from the PVO's and those who are there dealing with this daily, to see if this is indeed going through.

It never had occurred to me. I realized there were problems, but I thought we had had assurances that as a matter of fact aid was getting on through, but early stories had indicated that it was being held back and that they were wishing to feed the military

and so forth first. And now it does, I think, call into question how much is getting through.

Mr. McPHERSON. Senator, I think it would be helpful for me to expand a little bit on this. The food which has gone into dissident areas, to the secessionist areas, has by and large gone, not through government-controlled areas, but has gone across the Sudanese border. Now, we publicly have discussed this in a very limited way, for reasons that we thought were helpful to the overall situation.

It is clear that certainly some food is getting into northern Ethiopia, but it is also clear that more food should get to northern Ethiopia, and impoundment of ships like this one is destructive and we think, as I indicated earlier, just unconscionable.

Senator KASSEBAUM. I know in September when you testified here, concerns were raised at that point about food not getting much beyond the ports. I suggested that all the donor nations perhaps should go together and protest to the Ethiopian Government.

It does sound harsh to say that food aid will be cut off unless we have the cooperation to help facilitate its delivery. But if all nations could bring to bear that pressure and focus, then I think the Ethiopian Government would have no recourse but to respond.

Mr. McPHERSON. I think there are two different issues, or at least my testimony last fall largely dealt with how we augment just the process, the logistics of moving food out of Assab and the other two ports. At that time we were getting about 50,000 tons a month of food through. Well, that effort was enormously successful.

We are getting 100,000 or more tons through the ports into Ethiopia every month now. That has worked out very well and that worked very well in important part because the Ethiopian Government decided and committed, when Commissioner Dawit, head of their program, was here, several hundred additional trucks to the process of moving the food.

Now, that problem and their cooperation on moving food within certain parts of Ethiopia has been—"solved" is too strong, but it is working quite well. The problem we are facing now is how to get food in these northern areas that the government arguably does not control.

Senator KASSEBAUM. I realize the problems are separate. The connection in my mind is donor coordination, and I guess I would like to ask your assessment of donor coordination. You mentioned a meeting convened by the United Nations. When will that be convened?

Mr. McPHERSON. There has been one meeting already convened, two of them actually, one in Ethiopia and one in New York on Ethiopia. In Ethiopia coordination is working fairly well.

The meeting I spoke of a moment ago will be for all of Africa. The Secretary General has appointed a man by the name of Kurt Janssen, a Scandinavian, to head up his coordination there in Ethiopia, and he is the instrument that we are now using to make these cases. We spoke with him this morning, as a matter of fact, and we have in the past and will be pursuing the path of everybody working together to protest and to get at these issues, not simply the United States going alone.

As Mr. Crocker mentioned a moment ago, we think that the international community, as you have been saying, the internation-

al community is the route to push these things, not just the United States alone. I agree with you, in short.

Senator KASSEBAUM. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Kassebaum.

Secretary Crocker, one point that you made I presume refers to all of Africa and the economic relationships that that continent has with the United States. You indicate that United States exports were off by 33 percent. Is that exports in general, exports of food to all of Africa? What does that 33 percent refer to?

Mr. CROCKER. It is our commercial exports that I am talking about, Mr. Chairman. These are concentrated in fields such as transport equipment and construction machinery. Various kinds of things that form our traditional exports to Africa are way down as a function of the African economic crisis, the contraction of African economies and the reduction of their purchasing power.

The CHAIRMAN. So obviously, the point is, in the event that Africa begins to prosper through, in part, emergency aid, but likewise and really more importantly, intermediate and long-term policy changes, this is likely to lead to a prosperity that would give us more opportunities to export from this country. There could be an impact upon our own prosperity through the rising prosperity of Africa.

Mr. MCPHERSON. Senator, I would like to underscore that point by referring back to some figures earlier in the previous decade, in the seventies, when there was a time period, 2 or 3 years when the African market for American exports was growing faster than any other market in the world. Of course, the reverse is true today.

This is a potential area, if Africa can get on its feet economically, of great importance to American exports.

The CHAIRMAN. Obviously, in the Ethiopian situation with which we have been preoccupied this morning, this question is not so relevant. But in countries in which there have been agricultural policy changes that have led to greater production, to what extent are we thoughtful about the shipments that we are making, so that agricultural progress in those countries is not inhibited as an after-effect?

The argument has often come in the past from farming communities in various countries that we continued to ship food and it depressed, really, the possibilities for farmers and their own progress in the country.

Mr. MCPHERSON. We think this is an important concern. There is legislation on the books called the Bellmon amendment which specifically instructs us and the USDA to take this into consideration in allocation of food. It is a difficult question and problem, but I think in the disaster situation we are facing today, within the 3-million-ton range that we are talking about we are not going to be disruptive.

Now, there are a lot of figures being bandied around that, frankly, if we are not careful we could pour so much food into Africa that it could in fact be a disincentive to production. We are going to make sure our generosity does not smother the future.

The CHAIRMAN. We have talked about Ethiopia and Sudan as two situations that appear to be the most political. Many observers

believe that the smaller country of Mali has problems that on a per capita basis are almost as severe. Mali was mentioned, I think, by one of you as a situation where agricultural policies have been changed and improvements are occurring.

Would you describe for a moment that situation for the benefit of our record.

Mr. MCPHERSON. In Mali, prices to the farmers have, in fact, been increased, and there is some indication—and that was a couple of years ago—that those price increases have helped increase production over what would have been the case.

Of course, the overriding factor has become the drought, which has been a tremendous damper on the whole situation. We anticipate a call of substantial additional food for Mali in the next few weeks, because indeed on a per capita basis the situation in Mali is very serious.

The CHAIRMAN. Senator Kassebaum, do you have further questions?

Senator KASSEBAUM. Thank you.

I would like to ask this: Is it not true that in a very elemental way one of the things that has happened is, in a number of countries the supply of the natural resources, particularly timber has been virtually destroyed because of burning it, because of the need for cooking energy and so forth?

What are we doing to change this, that is in many ways responsible for major destruction in countries such as Tanzania?

Mr. MCPHERSON. Of all of the problems in Africa, in fact in the world generally, I guess I would say, I feel that we know or that we have in place—we know the least, I should say it that way, on how really to deal with deforestation and desertification.

Senator, I think you have seen the rows of trees that they have planted in the Sahel in some places to try to keep the desert from advancing, and how in some places the desert is overtaking the trees; all you see are the tips of the trees that were planted to stop the desert. In the Sahel, in the early seventies people said: Well, we have to help these poor people; we need to dig some more wells so they and their cattle can eat. Well, the result of digging more wells in some cases meant that even more cattle were brought in, there was even more overgrazing, and even more advancement of desertification.

Speaking to the President of Senegal recently, I talked about our struggles in the 1930's here, during the Dust Bowl era, and some of the problems that we had there, where we plowed up a lot of land that should not have been plowed at all. We spent billions to rectify that situation and really moved the population away from the kinds of things they were doing that caused the Dust Bowl.

We are doing quite a lot of work in terms of dollars on environment and deforestation and that kind of thing. I am not convinced that it is getting at the problem. I suspect, to be brief, if there is an answer here it is, that around the world, government policy has tended, and nomadic life in some cases has tended, not to allow or to encourage poor people to feel responsible for trees or watershed. When you cut down a tree, you cut down somebody else's tree, not your tree. I think that what needs to happen in these places is that

people need to feel that that wood lot is your wood lot or your neighbor's wood lot, kind of a community wood lot or your own.

And it is a tremendous problem, Senator, and it is one that we at AID are convinced we have got to spend a lot of time on in the next couple years. I feel we know, for example, how to get at family planning issues. We are making some real progress in Africa. The environment in family planning is discernibly different than when I came here 4 years ago, in Africa in several countries, and I think in years ahead we are going to have some answers. We are going to get some progress done.

I know, the agricultural research, I think I can see where we ought to go. I am less confident about the environment.

Senator KASSEBAUM. Thank you.

The CHAIRMAN. I have one final question. There are two major pieces of legislation that have been introduced: the administration bill, which you have outlined in part this morning, and H.R. 100, introduced by Representatives Weiss, Wolpe, Leland, and 64 co-sponsors, that provides for a total appropriation of supplemental food and assistance of \$1.016 billion.

Would you make a comment as to the value of those two pieces of legislation for the record?

Mr. McPHERSON. I would be happy to, Senator. The Weiss-Wolpe legislation provides hundreds of millions of additional assistance, some of it development assistance, some of it disaster assistance, nonfood assistance that the administration's proposal does not provide. It is our considered judgment that in fact what we are proposing in those nonfood areas is adequate.

The most public discussion, however, has been about food, of course. But in fact, when you get right into the Weiss-Wolpe proposal, what they are proposing is: One, that the United States provide 1.4 million tons of additional food, above and beyond what is already planned, and the administration's proposal is that 400,000 metric tons be provided over and above what planned. The supplemental appropriation requested by the President when he made his announcement a couple of weeks ago would permit this.

The money which we request, of course, is substantially less, but it is substantially less because we obtain the food resources in off-budget ways, by tapping into CCC stocks by section 416, by using the so-called Kasten pricing amendment in obtaining the food so as to obtain it substantially below prices otherwise required.

In fact, the difference between the two proposals in the total amount of food is about 1 million tons. It gets down to the question of how much food is really needed. We believe that in the range of 3 million tons is necessary. It would appear that the Weiss-Wolpe proposers would suggest that a substantial additional amount of food is needed, maybe 1 million tons or so.

We are not confident or sure of how they arrived at their figure. It appears that they have gone to the FAO and taken, let us say, so much for Sudan, that is what FAO suggests, they have gone to somebody else and taken that figure. They have taken sort of the highest figure from wherever it might be and come up with their proposal.

I think this is a highly technical kind of problem, at least as to how much food is needed, and because we have tried to treat it

that way what we have done is, Mr. James Kelly, who is the Deputy Director of our Task Force on Hunger for Africa, and his team have been up here on the Hill briefing people on how we have approached this, how we have reached our 3 million tons.

Frankly, it is a figure I feel comfortable with and one that we stand by.

The CHAIRMAN. Thank you very much for your testimony today. We are pleased that you have come and have been so forthcoming.

Mr. CROCKER. Thank you, Mr. Chairman.

Mr. McPHERSON. Thank you, Senator.

The CHAIRMAN. It is now the privilege of the committee to hear from a distinguished colleague, Senator Jack Danforth of Missouri, who has had considerable personal experience in terms of his own visits to areas in which dire famine is proceeding, and who has made a number of appeals to his colleagues.

We are very pleased that you could join us this morning, Senator Danforth. Please proceed, if you will.

STATEMENT OF HON. JOHN C. DANFORTH, A U.S. SENATOR FROM MISSOURI

Senator DANFORTH. Mr. Chairman, thank you very much. Let me first congratulate you on your new role as chairman of this very important committee, and commend you for your early action, before Congress is really getting itself in gear, in looking into the situation in Africa and what the United States is currently doing and what we should be doing to relieve that desperate problem.

I have, Mr. Chairman, a prepared statement. I would rather not read it, if that is all right with you, and just submit it for the record.

The CHAIRMAN. It will be published in full.

Senator DANFORTH. I would just like to make a few points. First, I think we should be proud of our country. I think we should be proud of what our Government has done and what the American people have done to relieve hunger where it has been identified, and this is certainly the case in Africa.

I think it is very easy to blame government for almost everything that goes wrong in the world, but I believe that our response to food crises where they have been clear to us has really been laudable. One of the heartening things, both with respect to the African hunger situation and with respect to the situation in Cambodia back in 1979, was the fact that the American people, when they learned of the problem, were so forthcoming.

I saw the story of Loret Ruppe and her appeal for Peace Corps volunteers for Africa. As I read it, she hoped to get something like 500 additional Peace Corps volunteers. She went before the cameras and at last report 6,000 people had volunteered to go over to Africa to provide technical assistance of one kind or another.

I believe that that kind of response really is inherent in the American spirit and that, in responding to a situation such as hunger in Africa, we are not only keeping people alive, which of course is the most important thing, but we are also spelling out what we stand for as a country, and I think that that is significant.

It is my understanding that this particular hearing is dealing with emergency assistance and what we are to do with respect to the crisis situation that we have all been seeing on the evening news, especially with respect to Ethiopia, but also with respect to other parts of Africa. I do not know, Mr. Chairman, how many dollars are needed. I do not know of anybody who does know for sure.

I am sure that as we go through the legislative process different people will have different ideas, and there will be claims that one person's figure is inflated and another person's figure is too low and so on. At least at this point, I do not with any confidence know how much is needed or over what timespan.

I think probably less important than the initial dollar amount that we reach is whether the administration and the Congress are going to make an ongoing commitment to continue to monitor the situation in Africa and to do whatever is necessary down the road to take care of the problem.

I do not think we know right now what the situation is going to be 6 months from now or 1 year from now. I do not think that there is any way to find out. So I think that what we should do is to work with the World Food Program to come up with the best estimate that we can as to what the immediate need is and then make a commitment, the administration make a commitment and the Congress make a commitment, that we are going to continue to watch the situation and we are going to be flexible down the road, and that we are going to commit ourselves to do whatever is necessary.

We have our budget problems and a lot of people are talking about freezes, and Senator Kassebaum is the originator of the freeze idea, and I am very concerned about the budget. But I think that this is one area where we are just going to have to have something of an escape hatch in the future, because I do think that much more important than any initial figure or any initial prediction is the fact that we are just going to have to be flexible.

I would hope that that is the position of the administration. From what I understand, and I have been talking to Peter McPherson about this, this is in fact the position of the administration.

I would like also to comment about the long-term situation. You know, we turn on the television and we see pictures of people who are dying and there is a crisis, and we say, gee, this just cannot be, and there is a tremendous outpouring of interest and outpouring of support from our Government and from the people.

And yet, if you go to these areas in Africa you realize not only the immediacy of the problem, but also the immensity in geography and in duration. Africa is a huge continent. Getting around it just to see it is a significant problem of logistics.

The drought has been going on for years. The Sahel is moving south. Population is growing. These are long-term problems, and I think it is going to be important for us as a country to address the long-term situation, in addition to responding to the short-term problems of emergency food relief.

When I went there, I hoped to identify a few big things that we could do, maybe a dam that could be put up or an irrigation project, something that would really produce dramatic results. But

I think the most dramatic thing that I saw was not any big project, but a small research station in a rural area of Somalia.

We flew in in a little plane, landed in a place that was 100 miles from nowhere, and were met by two men from the University of Wyoming. They were there to experiment with ways of raising sorghum, just two individuals in overalls, and they had found through their experimentation that sorghum production could be greatly increased just by changing the time of the planting and the spacing of the plants.

I think that this kind of small project proliferating throughout the continent of Africa in an extension-service model is maybe as important as anything else we can do in that continent. I think that it also has the potential of involving tremendous numbers of Americans who really are interested in it, such as the 6,000 people who want to get into the Peace Corps and participate in this kind of program.

So I think that these small projects are worth looking at. I also believe that we have to do our best to leverage policy changes within the continent of Africa. I am convinced, and I know you are convinced, Mr. Chairman, from your work on the Agriculture Committee as well as the Foreign Relations Committee, that the Marxist agricultural policy has never worked anywhere, and if countries such as Ethiopia and Mozambique follow that model, whatever we do with respect to developmental assistance is not going to go very far.

And in fact Mozambique has learned this. They are moving away from collective farms to the smaller farms. So I think as we move to try to improve the indigenous production of food within Africa, we should be attentive to what we should do to attempt to leverage policy changes within those countries.

Which brings me to one specific, and that is the funding of the International Development Administration [IDA]. IDA offers a way for the world community to say to African countries: Look, we are willing to help with your development, but you have to help yourselves. I think that that kind of message comes in a much stronger fashion and is much more readily received if it does not come from Uncle Sam alone, but if it comes from other countries operating on a multinational basis.

And so I would hope that, among other things, we might reconsider our commitment to IDA. We really welched on the deal and I think that that is to the detriment of the future of Africa and also, as a matter of fact, to our own standing.

So again, I want to commend the committee and restate that I think that what is involved in this question is not only the saving of people's lives, but also an opportunity for America to live out in a very specific way what we believe and what we say we think about our country. It is enormously heartening to go out into this country and to see people, particularly kids, and talk to them about the food situation and to see how interested people are in doing something about it.

I think that if we can give them that opportunity to participate it is an enormous gift that America can make to the world and that we can make to our own people in realizing their own identity.

So Mr. Chairman, thank you very much. If there is anything that I can add or any questions that I can answer, I am at your disposal.

[Senator Danforth's prepared statement follows:]

STATEMENT OF SENATOR JOHN C. DANFORTH

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS

MR. CHAIRMAN, I AM GRATEFUL FOR THE OPPORTUNITY TO APPEAR BEFORE THIS COMMITTEE TO CALL FOR A RENEWED AMERICAN COMMITMENT TO FIGHTING HUNGER AND FAMINE IN AFRICA. I COMMEND THE COMMITTEE FOR MOVING QUICKLY TO ASSESS THE SERIOUSNESS OF THE AFRICAN CRISIS.

THE RESPONSE OF OUR GOVERNMENT TO THIS CRISIS HAS BEEN MORE THAN GENEROUS. SO FAR THIS FISCAL YEAR THE UNITED STATES HAS PLEDGED MORE THAN \$325 MILLION IN EMERGENCY FOOD AID TO AFRICA--THE LARGEST AMOUNT GIVEN FOR THIS PURPOSE SINCE THE INCEPTION OF OUR FOOD AID PROGRAM. NO OTHER COUNTRY CAN MATCH OUR CONTRIBUTION. YET MUCH MORE REMAINS TO BE DONE.

WE HAVE HEARD TESTIMONY TODAY ON THE ADMINISTRATION'S EMERGENCY AID PACKAGE FOR AFRICA. THIS PROPOSAL IS CERTAINLY A STEP IN THE RIGHT DIRECTION. UNFORTUNATELY, HOWEVER, THE ASSESSMENT OF EMERGENCY FOOD NEEDS IS AN ART, NOT A SCIENCE. IT IS TOO EARLY TO PREDICT THE OUTCOME OF THE CRITICAL SPRING AND SUMMER HARVESTS. WE MAY DISCOVER THAT THE ESTIMATES OF AFRICA'S FOOD AID NEEDS WERE OVERLY OPTIMISTIC. IF SO, WE MUST ADJUST OUR CONTRIBUTION UPWARDS WITHOUT DELAY.

MY PURPOSE IN COMING HERE IS NOT TO ARGUE THE CASE FOR STEPPING UP OUR RESPONSE TO THE CURRENT EMERGENCY, HOWEVER. NO ONE DISPUTES THE NEED FOR ADDITIONAL AID. I AM HERE TO URGE THAT WE MOVE BEYOND THIS CRISIS-ORIENTED APPROACH TO AFRICA'S FOOD PROBLEMS. PROVIDING FOOD AID DURING A FAMINE GIVES THE DROUGHT VICTIMS A BRIEF RESPITE FROM HUNGER AND STARVATION. IT DOES ABSOLUTELY NOTHING TO PREVENT FAMINE FROM RECURRING.

FOOD AID TREATS THE SYMPTOMS OF AFRICA'S HUNGER PROBLEM. IT DOES NOT TREAT ITS UNDERLYING CAUSES. IF WE CONTINUE TO RELY ON THIS BAND-AID APPROACH TO AFRICA'S FOOD CRISIS, THE CONTINENT WILL SLIDE INTO A STATE OF PERMANENT DISASTER. PICTURES OF STARVING CHILDREN WITH DISTENDED BELLIES AND THE HEADS OF OLD MEN WILL NO LONGER SHOCK AND HORRIFY US. THEY WILL HAVE BECOME COMMONPLACE.

AFRICA'S FOOD CRISIS IS NOT AN HISTORICAL INEVITABILITY. AFRICA WAS ABLE TO FEED ITSELF FOR CENTURIES. ONLY TWENTY YEARS AGO THE CONTINENT WAS STILL VIRTUALLY SELF-SUFFICIENT IN FOOD. THIS PAST YEAR, HOWEVER, AFRICA HAD A GRAIN DEFICIT OF 7.3 MILLION METRIC TONS. DROUGHT AND DESERTIFICATION ALONE DO NOT ACCOUNT FOR THIS DRAMATIC AGRICULTURAL DECLINE. MAN HAS COMPOUNDED THE DAMAGE DONE BY NATURE.

UNBRIDLED POPULATION GROWTH IS PUTTING SEVERE STRESS ON LAND THAT IS ONLY marginally productive. The continent is already incapable of feeding its 512 million inhabitants, yet somehow it must find the means to feed an additional 14 million new mouths every year. Green revolution technology has enabled other parts of the developing world to cope with burgeoning populations. But the green revolution passed Africa by. The region's difficult terrain, poor soils, inhospitable climate and intractable plant and animal diseases have baffled scientists.

Policies of African governments have made matters worse. African leaders have pursued economic policies that discourage farmers from producing. They have experimented with the failed Soviet model of state farms and tight government controls. Overly ambitious urbanization and industrialization schemes have been encouraged while agricultural development has been ignored. In South Africa, a racist government has stuffed millions of blacks into a small fraction of the available land and then expected the rest of the world to help feed them.

It is difficult to sustain hope for Africa's future in the face of these seemingly insurmountable obstacles. But there are a few bright spots in this otherwise bleak landscape. One of the bright spots is an agricultural research station in

BAIDOA, SOMALIA, WHICH I VISITED DURING MY TRIP TO AFRICA LAST YEAR. TWO EXTENSION WORKERS FROM THE UNIVERSITY OF WYOMING HAD SUCCEEDED IN RAISING A HEALTHY CROP OF SORGHUM IN A FIELD THAT HAD RECEIVED LESS THAN THREE INCHES OF RAIN DURING THE GROWING SEASON. NEITHER MECHANIZED EQUIPMENT NOR HEAVY CHEMICAL FERTILIZERS HAD BEEN USED. THE TWO MEN WERE CONFIDENT THAT THEIR SUCCESS COULD EASILY BE REPEATED IN THE SURROUNDING COUNTRYSIDE.

I DO NOT CLAIM TO BE AN AGRICULTURAL EXPERT. BUT I DO BELIEVE THAT THE LESSONS I LEARNED IN BAIDOA AND ELSEWHERE IN AFRICA ARE VALID. I AM CONVINCED THAT THE PRIMARY GOAL OF OUR FOREIGN AID PROGRAM IN AFRICA SHOULD BE TO MOVE THE CONTINENT CLOSER TO FOOD SELF-SUFFICIENCY. PUTTING AFRICA BACK ON THE ROAD TO FOOD SECURITY WILL BE EXPENSIVE AND TIME-CONSUMING. BUT THE ONLY ALTERNATIVE IS A CONTINENT WHERE MILLIONS OF HOPELESS HUMAN BEINGS WAIT IN FEEDING STATIONS AND REFUGEE CAMPS FOR THE NEXT HAND-OUT, WHICH MIGHT NOT EVEN COME.

SOME WOULD QUESTION THE WISDOM OF EXPANDING OUR EFFORTS IN AFRICA GIVEN THAT WE HAVE LITTLE TO SHOW FOR THE AID RESOURCES ALREADY INVESTED THERE. MY RESPONSE TO THIS ARGUMENT IS THAT MANY OF OUR DEVELOPMENT STRATEGIES HAVE BEEN MISGUIDED. WE HAVE SPREAD OUR RESOURCES THINLY INSTEAD OF DOING A FEW THINGS WELL. WE HAVE SPENT TOO MUCH ON BIG

BUILDINGS AND ELABORATE RECLAMATION SCHEMES AND NOT ENOUGH ON SEEDS AND TOOLS. WE HAVE GONE AFTER THE QUICK-FIX INSTEAD OF GEARING UP FOR THE LONG HAUL.

IT IS TIME TO RETHINK OUR APPROACH TO AFRICA'S FOOD CRISIS. WE MUST GO BACK TO THE BASICS OF AGRICULTURAL DEVELOPMENT. WE MUST WORK WITH--NOT AROUND OR AGAINST--THE SMALL FARMERS WHO CONSTITUTE THE MAJORITY OF AFRICA'S POPULATION AND PRODUCE THE BULK OF ITS FOOD. WE MUST ADOPT PLANNING HORIZONS OF DECADES, NOT YEARS. WE MUST DO A BETTER JOB OF COORDINATING OUR EFFORTS WITH THOSE OF OTHER DONORS. AND WE MUST REVERSE THE DECLINE IN GOVERNMENTAL SUPPORT FOR THOSE MULTILATERAL INSTITUTIONS THAT HAVE A PROVEN RECORD OF SUCCESS IN AFRICA. THE REDUCTION OF OUR CONTRIBUTION TO THE WORLD BANK'S INTERNATIONAL DEVELOPMENT ASSOCIATION WAS PARTICULARLY SHORT-SIGHTED. IT IS THE ONE PROGRAM THAT HAS BEEN THE MOST EFFECTIVE IN LEVERAGING DONOR CONTRIBUTIONS AND ENCOURAGING POLICY REFORMS AMONG RECIPIENTS.

I DO NOT MEAN TO IMPLY THAT IMPROVING OUR AID PROGRAM WILL AUTOMATICALLY SOLVE AFRICA'S FOOD CRISIS. THERE ARE LIMITS TO WHAT AID BY ITSELF CAN ACCOMPLISH. THE SUCCESS OR FAILURE OF ANY DEVELOPMENT STRATEGY FOR AFRICA ULTIMATELY DEPENDS ON THE AFRICANS THEMSELVES. NO AMOUNT OF FOREIGN AID CAN COMPENSATE FOR GOVERNMENT POLICIES THAT ENCOURAGE POPULATION GROWTH, DISCOURAGE FOOD PRODUCTION AND PROMOTE URBANISATION AND INDUSTRIALIZATION OVER AGRICULTURAL DEVELOPMENT.

TO OFFER FOOD AID TO HUNGRY PEOPLE IS A MATTER OF PRINCIPLE. TO PROVIDE DEVELOPMENT ASSISTANCE TO A COUNTRY WHOSE POLICIES DESTROY PRODUCTION INCENTIVES IS AN EXERCISE IN FUTILITY. ETHIOPIA IS A CASE IN POINT. I MUST ADMIT TO BEING FRUSTRATED BY RECENT ARTICLES ON THE ETHIOPIAN FAMINE THAT ASK THE QUESTION, "WHERE DO WE GO FROM HERE?" A MORE APPROPRIATE QUESTION WOULD BE, "WHERE DO THE ETHIOPIANS GO FROM HERE?" THE ETHIOPIAN LEADERSHIP PLOTTED A COURSE FOR ECONOMIC DISASTER AND STUCK TO IT WITH MYOPIC TENACITY. WE CAN ALL SEE THE RESULTS. AND I AM AFRAID THAT LITTLE CAN BE DONE BEYOND SIMPLY STAVING OFF MASS STARVATION AS LONG AS THE POLICIES OF THE ETHIOPIAN GOVERNMENT REMAIN UNCHANGED. NO ONE WANTS TO WRITE A COUNTRY OFF. BUT THERE COMES A POINT WHEN THE BETTER PART OF WISDOM IS TO PUT RESOURCES SOMEPLACE WHERE THEY WILL BEAR FRUIT.

FORTUNATELY, MANY AFRICAN LEADERS HAVE COME TO REALIZE THE NEED FOR REFORM. SOME ARE BEGINNING TO ACT. THE GOVERNMENT OF MOZAMBIQUE HAS RECOGNIZED THE LIMITATIONS OF LARGE COLLECTIVE FARMS AND HAS PROVIDED INDIVIDUAL PLOTS TO FARMERS. A NUMBER OF COUNTRIES HAVE RAISED PRODUCER PRICES FOR FOOD COMMODITIES. A FEW HAVE SCALED BACK STATE GRAIN BOARDS.

BUT THERE IS ONLY SO MUCH AFRICAN COUNTRIES CAN DO ON THEIR OWN. THEIR RESOURCE BASE IS POOR. THEIR PRODUCTIVE CAPACITY IS NIL. THEIR DEBT IS UNMANAGEABLE. THEIR PEOPLE ARE POVERTY-STRICKEN AND ILLITERATE. AND ON TOP OF ALL THIS IS THE DROUGHT. THEY NEED OUR HELP.

SOME PEOPLE WILL ASK WHY WE SHOULD DO ANYTHING FOR AFRICA AT ALL, ESPECIALLY IN LIGHT OF OUR OWN BUDGET SITUATION. I AM AS CONCERNED ABOUT THE DEFICIT AS ANYONE ELSE. BUT I FULLY BELIEVE THAT IF WE DO NOT INVEST IN AFRICA'S FUTURE NOW, WE WILL PAY DEARLY FOR IT LATER. AFRICA IS ON THE BRINK OF DISASTER. WE CANNOT AFFORD TO ABANDON IT. WE HAVE UNDENIABLE SECURITY CONCERNS IN THE REGION. WE NEED ACCESS TO THE CONTINENT'S STRATEGIC MATERIALS. WE NEED ITS POTENTIAL MARKETS.

FINALLY, THERE IS THE HUMAN FACTOR. ANYONE WHO HAS EVER DOUBTED THE GENEROSITY, THE COMPASSION OR THE IDEALISM OF THE PEOPLE OF THIS COUNTRY NEED ONLY CONSIDER THE TREMENDOUS PUBLIC RESPONSE TO THE PLIGHT OF THE AFRICAN FAMINE VICTIMS. AMERICANS ARE PROFOUNDLY MOVED BY THE HUMAN MISERY THEY SEE IN AFRICA. THEY ARE READY TO HELP. IT IS TIME FOR US TO MAKE THE COMMITMENT TO FREE AFRICA FROM HUNGER. IT IS TIME FOR US TO LET AFRICA KNOW THAT HELP WILL STILL BE FORTHCOMING EVEN AFTER THE PICTURES OF ITS STARVING CHILDREN HAVE DISAPPEARED FROM OUR TELEVISION SCREENS.

The CHAIRMAN. Thank you, Senator Danforth.

If we may, with all of our witnesses and Senators, we would like to have a short colloquy. I would like to ask Secretary Crocker and Mr. McPherson for a comment on Senator Danforth's point on the funding of IDA and any comment in general on multinational funding as opposed to specific funding by the United States, the advantages and disadvantages of either way.

Mr. McPHERSON. Mr. Chairman, I think that the World Bank and IDA have played a very important role in this agricultural pricing question in recent years. The U.S. Government, in the last 4 years particularly, has taken a very strong position that agricultural pricing was a root of this spiraled downward production in Africa, agricultural production.

The World Bank has produced a series of reports called the Berg Reports which really have been the foundation of persuading many African countries that they had to do something about agricultural prices. We think that IDA, as the Bank's concessional resource window, is critical for Africa, and we have argued that in fact IDA VII, the African portion of IDA VII, should go up. That is our deep and strong commitment.

There has been a question in recent days about a special facility for Africa, that essentially paralleled the economic policy initiative that we proposed last year and that Congress in a sort of way,

anyway, appropriated \$75 million for policy work in Africa. We have taken the position vis-a-vis that facility, I think most acceptably to the Bank, that our policy initiative was in fact our contribution to this.

I think we feel strongly overall that the Bank and IDA play a very important role, and we look forward to continuing to be supportive.

Mr. CROCKER. To add a point, Mr. Chairman, I would simply say that we fully agree with the points Senator Danforth has made about the special place and special role of international institutions, who can say things sometimes and do things sometimes that it is difficult for an individual donor to do.

We are deeply heartened by the growing consensus amongst these institutions and the key donors, as well as most African governments, about what must be done in terms of policy reform. I think our own African economic initiative that has been discussed, as well as the Food for Progress Programs, are fully consistent with the message coming out from the World Bank reports.

We have also felt, as far as IDA VII is concerned, that we put forward a number that we felt had some chance of passage in Congress. There are, after all, some austerity realities we all have to deal with in our own country. But nonetheless, we place a very strong emphasis on the continuing importance of the multilateral institutions.

Mr. MCPHERSON. It is interesting, Mr. Chairman, but in the last 3 or 4 years there has been a move by the world community to support basically the program and policy thrust which the U.S. Government supports. I am not just saying the executive branch, but I think there is something of a consensus within the U.S. Government, Congress, and the executive branch, on how we should approach problems in Africa.

In the last 3 or 4 years, I have seen the world community begin to take more and more of a stance closer to ours. Perhaps we are persuasive, perhaps it is more likely that the circumstance has just suggested a difference in approach.

The international organizations are the cutting edge to getting that job done.

The CHAIRMAN. Well, Mr. McPherson, without for a moment diminishing the importance of the international groups and the reports that you mentioned, is it not a fact that this country's agricultural expertise is clearly one of the strongest things we have going for us? If there was to be any model that a country would follow, it would presumably be our own distinct and pragmatic way.

Perhaps this is one reason why we are persuasive. This is something we do very well.

Mr. MCPHERSON. Absolutely. Our agricultural revolution is an envy of the world. Something I think we often forget is that part of the reason we had an agricultural revolution here was that farmers could vote and farmers were able to get things from their legislatures and from their Congress; the land grant college system, the ICC, a number of things that they either needed to advance their cause or protections that they needed.

And so much of Africa is politically urban oriented. That urban orientation has been the reason. I mean, those were the people who could riot, if you will. That urban orientation has been the reason that they could in fact tax the farmer by keeping the prices low for cheap urban food.

So part of what I hope we can persuade is not only the right kind of economic policy, but a move toward democracy that in fact I think would advance the total economies of these countries.

The CHAIRMAN. As a matter of curiosity, are farmers in most African countries a majority of the population?

Mr. McPHERSON. Almost always.

The CHAIRMAN. So that in the event a democracy worked and farmers voted, essentially some self-corrective measures would occur through democratic institutions?

Mr. McPHERSON. That is right, sir.

The CHAIRMAN. Senator Kassebaum, do you have any questions or comments?

Senator KASSEBAUM. This is something that we talked about once before in analyzing the problems of agriculture and Africa in the United States, because our own farmers today believe that we have a cheap food policy here in the United States which is causing them really significant pain at this point.

But I would like to just say to Senator Danforth, because it was about 1 year ago at this time that he showed his pictures that he took from his trip to Africa, that they were very moving pictures. It is even my understanding that when the recent famine stories broke one of the major networks had to call upon you, Senator Danforth, is that not right, for some of your pictures in lieu of some supporting footage that they did not have?

I guess that, again, it is a story that it is unfortunate that it took the tragedy that is upon us at the moment to really draw the attention and focus that will be needed for a long-term commitment of patience. But it certainly has touched everyone at this point.

Senator DANFORTH. May I ask one question of Mr. McPherson, Mr. Chairman?

The CHAIRMAN. Yes, please do.

Senator DANFORTH. I just wanted to give you, Peter, an opportunity to respond one way or another to the basic point I made on the emergency aid, and that is, whatever figure we arrive at, I am sure it will be lower than what some people would advocate. Does the administration take the position that we will maintain an ongoing concern about the hunger situation in Africa, and if it turns out that whatever we have committed is inadequate, will the administration then be coming back to Congress and work with Congress to come up with whatever is appropriate to do the job?

Mr. McPHERSON. The President, as I think you know, personally has a deep commitment to getting this job done. We expect in the months ahead to continue to talk with Congress about what the needs are, and I am convinced that if the needs explode again we are going to be back up here.

Senator DANFORTH. And that is a commitment on the part of the administration, that we are going to continue to watch the situation and that if it turns out that what we are doing is inadequate we are going to come back and do whatever is appropriate?

Mr. MCPHERSON. We are going to do what is necessary.

Senator DANFORTH. Thank you.

The CHAIRMAN. Thank you very much, Senator Danforth and gentlemen. We appreciate your testimony. You are excused.

The Chair would now like to call as a panel: Dr. Philip Johnston, executive director of CARE, New York City; the Honorable Robert McCloskey, senior vice president of Catholic Relief Services of New York City; and Dr. Cory SerVaas, editor and publisher of the Saturday Evening Post of Indianapolis.

Would you please come up to the committee's witness table. We would like to proceed now with the testimony of our distinguished panelists who have assembled at the table. May I ask each of you to make statements of 10 minutes or less. The entirety of your testimony will be made a part of the record if you have submitted written statements, as some of you have.

Then following that, we would like to have questioning by Senators of the members of the panel. We will proceed with each of the three statements without interruption. We would ask Dr. Johnston to begin, then Mr. McCloskey, and then Dr. SerVaas.

Dr. Johnston.

STATEMENT OF PHILIP JOHNSTON, Ph.D., EXECUTIVE DIRECTOR, CARE, NEW YORK, NY

Mr. JOHNSTON. Mr. Chairman, thank you very much for the opportunity to appear in front of you and your committee. I have a prepared statement which I would like to submit.

The CHAIRMAN. Without objection, it will be published in full.

Mr. JOHNSTON. As supplementary remarks, might I ask that the committee endorse the President's Commission's report, in which it supports the extension of Public Law 480. The act, as you know, is up for reconsideration at the end of this year, and CARE, the organization that I represent, is a very strong proponent of the extension of Public Law 480 for all of the benefits that it provides for people with whom we share this Earth.

Second, in pursuance of the purpose of this meeting, may I also add my congratulations to the efforts of the American Government and the American people, for the generosity of their response to what has turned out to be a nightmare.

I would differ in some respects with some of the previous speakers, in that the response is late. The private and voluntary agency community that has been in place for many years in Africa cried in the wilderness pertaining to the scope of the pending disaster, and yet little was done. But yet, the rendering of a particular BBC television program turned the corner and all kinds of attention was focused on Ethiopia.

It is in our opinion a shame that it is focused exclusively on Ethiopia, because there are nine other countries in Africa where the dimension in total suffering is the same, although there are less people suffering than specifically in Ethiopia. It is a continentwide tragedy, not one focused exclusively on Ethiopia.

As others have mentioned, certainly food is not going to solve the problem in Africa. It is desperately needed to prevent death, which

most normal people would judge abhorrent, and that is the business we are in at the moment, preventing death.

But there needs to be great efforts over a sustained period of time to prevent the reoccurrence of the suffering that has been visited upon so many people. CARE has proposed to Congressman Leland and his committee, in testimony presented at the end of last year, a program designed by CARE entitled "A Drought-Prone Areas Program for Africa." As perhaps you know, CARE spends an enormous amount of time in logistical support, making sure that food in fact reaches those for whom it is intended, and one of our major obstacles is the level of preparedness in a country that finds itself saddled with a drought situation.

We have recommended in "A Drought-Prone Areas Program" the determination of the profile of preparedness in each of the African countries that may be affected by drought in the future. The second phase of that program is for us to put into place projects to lift the level of preparedness in countries.

We, for example, had to fight the dilemma in Somalia when we arrived there in 1981 to take over the logistical operations for the United Nations that it was impossible to have voice-to-voice contact from one end of Somalia to the other. Trying to monitor 350 trucks moving huge quantities of food over terrain which is essentially desert was very difficult without voice-to-voice contact.

We therefore have prepared a series of criteria by which a profile of preparedness would be prepared and, phase 2, we would implement project to lift that level of preparedness.

Phase 3 of our project would put into place projects that are aimed at reducing the effect of drought if in fact it happens, and those would be many of the forestation projects which we are running, the water programs we are running, clinics for rural health programs that we are in the process of preparing.

The net effect of this would be that, if a drought occurs in 1988, 1989, or 1992 or whatever it is, that there would be a much more solid foundation to place a program upon. In many countries that foundation is totally missing. The net effect of an investment now in the preparedness for the reoccurrence of drought, as it occurred in the late seventies and here we have it again in the eighties, would mean that a much more rapid, smooth-flowing pipeline of food could be instituted much more rapidly than we can now.

Many of the problems we are facing in countries such as Chad in trying to get food across the Chare River is because of that bloody bridge that is not there. Under our program we would build a bridge and put it in, and be able to move food through the Cameroon into Chad. But as of yet that work is not done.

But we recommend to the committee the consideration of CARE's "Drought-Prone Areas Program" for all that has in terms of benefits for Africa.

Additionally, we recommend that the committee look at the prepared statement by CARE in terms of things that need to be done now, today. We need more money for ocean freight. There is a groundswell in the United States of corporations, of foundations, of universities, of clubs, of whatever it is, churches, that want to help by giving gifts in kind to Africa for delivery into Africa, but they

are hindered significantly by the inability to raise the money for ocean freight.

We propose a partnership be formed between those who are willing to give gifts in kind and the American Government, by the American Government underwriting, by a larger amount of money being put into ocean freight allowances, the underwriting of that cost.

Thank you, Mr. Chairman.

[Mr. Johnston's prepared statement follows:]

PREPARED STATEMENT OF PHILIP JOHNSTON

Senator Kassebaum and members of the Senate Foreign Relations Subcommittee on Africa, I am Dr. Philip Johnston, Executive Director of CARE. It is a privilege to appear before you today to share with you information on what CARE is doing in response to the famine in Africa and our views on what more needs to be done.

The food and agricultural crisis in Africa is manifest in grim statistics that show per capita grain production for the drought affected countries declining at a rate of 2% per annum ever since 1970. In Mauritania, for example, a country nearly as large as Ethiopia and with 25% more land than Mozambique, the most optimistic estimate of its entire cereal production this year is only 20,000 tons, about 10 kilograms per capita. Meanwhile the population continues to grow at 2 1/2% annually.

These trends simply cannot continue. For CARE and other voluntary organizations, for the United States, bilateral and multilateral donors, and for the drought stricken African nations themselves, a major multi-year commitment to agricultural and rural development deserves highest priority. We must create a new national consensus in this country on the way in which we deal with Africa, and in particular on its ability to feed itself. As we proceed with our emergency relief efforts to save the lives of millions of drought victims, I would also ask this Committee to provide the leadership to forge a new consensus on long-term actions we

can undertake, bilaterally and through multilateral channels, to bring about agriculture and rural development. I encourage you to consider calling for an advisory committee or commission to review progress in dealing with the long term development problems, and make recommendations to Congress and the Administration.

CARE Programs in Africa

CARE is now in thirty seven countries worldwide, seventeen of these are African nations, nine of which are listed by the FAO and World Food Program as being severely affected by drought. In these African nations, as elsewhere, CARE focuses on development efforts to promote food production and generate income (irrigation, introduction of new crops, goat and poultry raising, bee keeping); to help arrest dessertification (windbreaks, community-owned woodlots, the introduction of fuel efficient stoves, and improved livestock grazing practices); and to improve public health (targetted food aid, potable water projects, and health education).

In nine African countries, however, CARE is directing most of its resources on short-term emergency assistance to refugees and victims of drought. The table below summarizes these CARE emergency programs. They are generally financed by CARE and CARE-International, through a special fundraising campaign, by U.S. AID and by international organizations.

Country	Situation Report	CARE Operations
Chad	<p>Half the nation's 4.5 million are affected by drought following the poor October harvest. Major migration of refugees to south and east.</p> <p>Landlocked nation causes extraordinary emergency food logistical problems. Food aid now arrives only via the Cameroons, and bridges and roads inadequate.</p>	<p>Emergency food and food for work for approximately 84,000. 5,000 tons of food distributed with supplemental request for an additional 5,000 tons approved. Re-forestry project with Ministry of Agriculture to provide greenbelts to arrest dessertification. Total annual CARE budget (excluding food) is \$1.8 million.</p>
Ethiopia	<p>Famine conditions and deaths from starvation reported throughout country.</p> <p>Hardest hit regions are in north, but in Hararghe province in the south (where CARE is operational) half the herds and virtually the entire November-December harvest was lost. Health workers report a four-fold increase in malnutrition among children in Hararghe.</p>	<p>Two emergency food aid programs to reach 260,000 people in Hararghe using 40,000 tons of food - 1,300 of which are being reprogrammed by CARE and are due to arrive shortly; subsequent food shipments will arrive in March. 30,000 blankets donated by CARE/Germany for free distribution in northern province of Wollo.</p> <p>Bilateral food aid monitoring for U.S. AID (50,000 tons) including end-use monitoring and logistic and computer support to Ethiopia</p>

- Kenya** Harvest of main season maize and wheat crop in August-September showed major loss due to earlier severe drought.
- Under \$1.9 million AID disaster assistance grant distributing 26,000 tons of food (from inland stores) to distribution sites for Government of Kenya.
- In consortium with other voluntary organizations undertaking emergency food for work and free food aid distribution.
- Other -- programs include building water systems, primary schools, developing vocational training programs.
- Mali** Appears to be suffering from its worst drought of the century.
- Aggregate production of cereals estimated to be 60% of "normal" with food aid gap exceeding 400,000 tons.
- Currently developing a food for work proposal for 6,000 tons and a remote areas transport unit (trucking fleet) in two drought affected regions
- AID has also requested CARE to monitor bilateral food aid.
- Mauritania** Aggregate production of cereals somewhat higher than last year, but sufficient to cover only 10% of consumption requirements.
- Under \$1.25 million grant CARE is working with Government Food Security Commission, contracting private commercial truckers, to distribute 10-15,000 tons of food for 277,000 people.

Mozambique	Estimated 100,000 died in past 3 years due to protracted drought. With planting now complete, entering critical period for rain for April's harvest.	Providing logistical support for food aid to the Government of Mozambique under \$2.9 million AID grant for Tete and Beira provinces with plans to expand to Manica province
Niger	Harvest of main season crop was highly unfavorable, estimated at 900,000 to 1,250,000 tons (80% below ave.) Disastrous pastoral situation has caused substantial migration.	Recently approved program for 8,800 tons of emergency food targetted for mothers and infants, coupled with AID grant for inland distribution. Additional inputs (in Cancut region) to include medical supplies and immunizations. Other programs include agro-forestry and dune stabilization project.
Somalia	Below normal harvest due to drought, exacerbated by influx of refugees from Ethiopia.	With operating budget of \$6 million and 48 CARE International staff, CARE is monitoring and delivering 100,000 tons of food to refugees in 35 camps along the Somali/Ethiopian border under an agreement with UNHCR. Other projects include reforestation and fuel efficient stoves.
Sudan	Current food aid deficit at 1 million tons - largest in Africa. Number of refugees from Ethiopia could dramatically increase in next several weeks.	Working with the Government of Sudan, World Food Program and Dutch Government to provide logistical support for distribution of 350,000 tons of food for Sudanese drought relief victims

in five severely affected districts, plus emergency food to Chadian refugees and drought victims in Western Sudan.

Working with Sudanese Commission for Refugees to provide food aid for 150,000 Ethiopian refugees.

Two water projects to benefit 40,000 refugees in Port Sudan and 60,000 Sudanese in North Kordofan.

Community forestry project with refugees and project to promote fuel efficient stoves.

'I have just returned from Sudan where there is a projected food deficit of one million tons. No other African nation has a current food deficit this large. CARE will be working with the Government of the Sudan to distribute food to an estimated 150,00 Ethiopian refugees - a number which could increase by a half million over the next few months. We are also going to work with the Government of Sudan and the Dutch Government on a program to deliver 350,000 tons of food in five severely drought affected regions of the country. Inland distribution for these operations is an extraordinary undertaking. Food aid to drought victims and refugees in Western Sudan must come via Port Sudan, 1,600 miles away, or

from Kenya's port at Mombassa. It will cost between \$150 and \$200 per ton to deliver sorghum from Port Sudan to this region. This is more than the cost of sorghum under the PL 480 program. Without substantial additional assistance from the international donor community - both in food aid and in meeting inland distribution costs - there is every likelihood that the nutritional status of Sudanese and refugees in that country would be as tragic as the situation in Ethiopia.

The United States Response

With few exceptions the United States has responded in a timely manner to urgent food aid needs so far this fiscal year - quickly exhausting an inadequate "emergency reserve" under the Title II program, transferring additional food aid from the Title I sales program, and (after some Congressional urging) using for the first time 300,000 tons of wheat from the Emergency Wheat Reserve. Nevertheless, it is apparent that additional assistance is urgently required under a supplemental appropriations if these relief efforts are to continue.

On January 3rd the President announced an urgent supplemental appropriations request for \$235 million. This included \$185 million in additional Title II food aid, \$25 million for International Disaster Assistance and \$25 million for refugee programs. The President's request also proposed transferring substantial funds from other food aid programs

and development assistance accounts in order to provide an overall FY1985 emergency and regular food aid program level of 1.5 million tons for Africa. While the request appears to be substantial, I believe that it will prove to be inadequate - both with respect to the levels and types of assistance needed in Africa under urgent provisions of Congress.

Other official estimates of additional food aid requirements for the remainder of the fiscal year are nearly three times the level of the Administration's request. On the one hand this suggests a need for single, reliable source of information which could on a monthly basis show each country's food aid needs against all donor commitments, shipments, and arrivals, and would also spell-out the various assumptions made in estimating food aid needs and delivery schedules. In particular, limitations of "absorptive capacity" often-times turn out to be constraints proceeding from inadequate capital assistance for necessary logistics.

Yet, even if we accept as adequate the Administration's request for an additional 900,000 tons of food aid for the remainder of the fiscal year, the President's Title II supplemental request for \$185 million would purchase only about half this amount. Approximately \$190 million in additional funding would still be required from other sources. Similarly, while requesting an additional \$25 million for AID's International Disaster Assistance account AID is simultaneously being called upon to reprogram an equal amount

from its regular development assistance programs.

I believe such an approach, driven by budget constraints, is short-sighted. Such extensive reprogramming would create its own new problems and would jeopardize our investment in important on-going development programs. It would be wrong to prematurely reduce CARE's food aid programs in India and Bangladesh, where there are more chronically malnourished children than in all Africa.

In addition to the food, refugee and disaster assistance monies which the President announced he would be seeking, additional types of assistance for African relief and rehabilitation are also urgently needed.

In particular, I would encourage this Committee to consider additional funds for ocean and inland freight and related shipping costs under the Ocean Freight Reimbursement Program. The current FY1985 appropriations of \$7.5 million for all voluntary organizations to transport food, clothing and medicines to needy persons overseas is completely earmarked. Just as Congress appropriated supplemental Ocean Freight Reimbursement Program monies, during the 1972-73 Sahel drought, the voluntary organizations once again need additional ocean freight funds to more fully utilize the generous public donation of commodities needed in Africa. The Ocean Freight Reimbursement Program is an efficient program combining U.S. Government support with private sector contributions.

Additionally, I would also encourage this Committee to favorably consider the types and levels of assistance proposed in such bills as HR 100, The African Famine and Recovery Act of 1985, which has over 64 co-sponsors. This legislation provides for \$610 million in supplemental Title II food aid along with the following additional relief and rehabilitation items:

- Inland transportation for Title II food donations (\$177 million)
- Outreach/Enhancement Grants to provide logistical and other program support for Title II supplementary feeding (\$25 million)
- Additional relief and rehabilitation projects through PVOs and international organizations (\$80 million)
- AID disaster assistance funds (\$70 million, \$30 million of which is earmarked for emergency health needs)
- Migration and refugee assistance for immediate and longer term development needs (\$50 million, \$25 million of which is earmarked for ICARA-II projects)
- AID Operating Expenses (\$4 million)

This bill reflects the fact that the crisis in Africa involves much more than just the shortage of food, that adequate funding should be sought through a supplemental appropriations without extensive reprogramming, and that a rehabilitation component needs to be included with our relief efforts.

WHAT MORE CAN CARE DO?

Recognizing the importance of ensuring that areas at risk of drought are adequately prepared to meet future emergencies, and that current relief efforts support sustained development in these drought-prone areas, CARE is in the process of developing a "Drought Prone Areas Program" in Africa which could be simultaneously introduced in several drought-affected nations, with support from the international donor community. The initial focus of this program would be identifying key constraints to effective utilization of drought relief and to develop a plan to overcome these constraints, before famine conditions prevail.

The three phased proposal begins with a survey of disaster relief preparedness within 15 drought prone African countries. Phases two and three consist of preparing projects aimed both at improving a country's capacity to handle emergency relief operations, and implementing development projects that could ameliorate the impact of future droughts. Typical projects would include: implementing new village-level food storage, irrigation and potable water projects; additional afforestation and dune stabilization projects, the development of soil and water conservation programs, and introduction of improved livestock and grazing practices.

On behalf of CARE I want to thank you for this opportunity to assist you in reflecting upon this critically important dimension of America's foreign relations.

The CHAIRMAN. Thank you very much, Dr. Johnston.
Mr. McCloskey.

**STATEMENT OF HON. ROBERT J. McCLOSKEY, SENIOR VICE
PRESIDENT, CATHOLIC RELIEF SERVICES, NEW YORK, NY**

Mr. McCloskey. Thank you, Mr. Chairman.

My full statement deals with the background as we see it of the food crisis in Africa, the causes of which are being debated, and the history of our involvement on the continent of Africa. But in summary, let me deal with our program in Ethiopia, the future need there and elsewhere perhaps on the continent, and the components we believe supplemental legislation should include. Finally, I would like to state how Catholic Relief Services [CRS] intends to use privately contributed funds.

CRS has been active in Ethiopia for a generation. Our programs are generally small, containing both development projects and food and nutrition activities. As the magnitude of the crisis grew, highlighted and dramatized by Ethiopia, the CRS joined with three other church-related agencies, which I will refer to as CDAA—it is an inter-faith group being formed to launch a 1-year famine intervention program, using the capabilities of private agencies active in Ethiopia.

It has three objectives: To improve worldwide awareness of the nature and gravity of the famine crisis; to increase resources for famine relief offered through the private voluntary agency sector; and to support and expand existing private agency famine relief programs.

Now, in Ethiopia each of these participating partners has taken responsibility for geographic areas of the country. They will in turn provide food and other relief supplies coming through the consortium to other NGO's working in their areas of responsibility.

Catholic Relief Services has assumed responsibility for administration, logistics, and accountability of this grouping, and has put together a program that I much prefer to detail here, aimed at the most vulnerable groups in the famine areas: one, children under 5 years and lactating mothers; two, children so malnourished they need special feeding; three, the aged, handicapped adults, and families without any other resources, and those so severely affected by famine that they cannot care for themselves; and finally, famine-affected groups who are able to do some community work, otherwise called the Food for Work Program.

The program is based on a dry, what is called take-home ration. The system is designed to allow children to remain in their families and families to remain in their villages, thus avoiding to the degree possible displacements of large populations.

We have laid emphasis in Ethiopia on discouraging concentrations of people in camps, such as those that have been most publicly identified, Korem, Bati, because gathered together in those conditions people already weakened by hunger fall victim to some of the diseases that we have read much about. We therefore believe that, wherever possible, people should be provided with food in their own homes and villages, where they will be able to return to farming when conditions permit.

Currently we are not able to provide the full ration to the programs we support. The flow of food has not been sufficient to meet the projected levels and as a result the ration rate is almost half or 800 calories. We will increase the level as soon as monthly food supplies are adequate to do so, and hopefully that will be soon.

Our collective organization is presently distributing 10,750 tons of food a month, and during January will extend its programs through new requests for assistance to reach 1 million people in Ethiopia. Our target is a guaranteed supply of commodities at the rate of 27,000 tons for the next 12 months, with the objective of reaching 1.8 million people.

We have informed AID that we would look to the U.S. Government for 225,000 metric tons. To date, we have requested and received approval for 53,000 tons. Our request for the balance has just been sent to AID. We and our partners have otherwise made requests for an additional 100,000 tons from Canada, Australia, and the European Community.

Even as these programs are being carried out, there is a need, nearly as pressing, to begin to act through projects aimed at recovery. People now affected by famine need to return to productive life as soon as possible, to be able to plant and harvest and otherwise to provide for themselves and their families.

To this end, we at Catholic Relief Services have committed \$15 million of privately contributed money, some of it already spent, for costs associated with the emergency. Our projected expenditures will be for warehousing, trucks, temporary shelter, medicines, and associated health needs, potable water systems, and other similar necessities. A considerable portion of the \$15 million will be spent on hand tools, seeds, draft animals, and technical assistance to get a crop in the ground for the spring planting season.

Though international attention has focused on Ethiopia, the famine is, as I mentioned earlier, an Africa-wide phenomenon. We have heard figures about the shortfall on the continent or the food deficit, and there is some dispute over just precisely what that level is, and we will not pretend to be omniscient and know an absolute figure. We judge it to be somewhere between 2 million and 3 million tons throughout the continent.

We believe that the current situation has to be addressed, if it is to be addressed effectively, in a comprehensive manner by dealing: (1) with immediate food needs; (2) programs for recovery; and (3) commitment to long-term development objectives. It will not be easy to do this and it cannot be done quickly. All concerned will have to make determined exertions to stay the course.

The African governments will be called upon to make difficult political and economic policy choices consonant with real development goals. Donor nations must be willing to commit resources over the long term. And the community of private voluntary agencies will have to increase efforts and our numbers on the ground. I think a good case can be made for more private voluntary agencies being present in and on the continent of Africa.

We believe the U.S. Government has a pivotal role to play. CRS does not hold the view that the United States should or can do it all. We do believe, however, it should be possible and worthy of us

to contribute 50 percent of the necessary assistance. We have more; we can afford more.

At the 50 percent level, it is reasonable to expect that the rest be done by others. Unfortunately, the response of other donors has been disappointing. For that reason, we support the administration's call for an international conference aimed at closer agreement on the extent of the need and more equitable sharing among the donors.

And I was, frankly, a bit disappointed to hear administration witnesses this morning say that they see the United Nations as the best instrument for this. I am afraid I would disagree.

Last year we advocated a \$150 million supplemental appropriation for Africa. Any supplemental we believe now should be comprehensive, which is to say it ought to include provisions not only for food but for urgently needed nonfood aid, such as transport, recovery and development programs, and increased funding for the Office of Foreign Disaster Assistance.

In this regard, we commend the committee's attention to House bill 100 as a model of that approach. We have not yet had an opportunity to review in detail the administration's recent supplemental proposal, although I did hear it clarified to a greater extent here this morning than had been the case to date. But I would say that on its face the proposal appears to us to fall short of the need in Africa and the capacity in this country to respond. But we will keep an open mind and we will examine the administration package further.

The emphasis on African needs is, I think, well taken, and this committee, Mr. Chairman, is to be commended for turning its attention early in the Congress to these issues. And I join with others in commending you for that effort, and thank you very much for the opportunity to appear.

[Mr. McCloskey's prepared statement of follows:]

PREPARED STATEMENT OF HON. ROBERT J. McCLOSKEY

Mr. Chairman, distinguished members of the committee, it is a pleasure to be here today. We at Catholic Relief Services welcome the opportunity this hearing provides to focus attention on the grave situation in Ethiopia and other Sub-Saharan African countries stricken by famine. We commend the committee for its prompt attention to this tragic problem in the new Congress. We hope that these discussions will help point the way toward positive and rapid responses.

Ethiopia is now emblematic of drought and famine throughout Sub-Saharan Africa, an area that embraces 450 million people. The international news media have already begun calling attention to "other Ethiopias" in Mali, Niger, Chad, Mozambique and elsewhere--places not as readily recognizable to world public opinion as Ethiopia, but where conditions are nearly as severe.

The causes of these multiplying human tragedies are being enumerated, documented and debated. Depending on who's conducting the debate, the putative causes--nature, neglect, mismanagement, waste--are assigned varying priority. Operational agencies like mine cannot afford now to be distracted by the competition to assign blame--and I assume that is the attitude of this committee.

The responsibility we have assumed is to ask at the end of the day, What have you done to prevent more men, women and children from dying of disease and starvation? Here in the United States the response from government, business and individual citizens since the "story" of Ethiopia broke in late October has been heartwarming and reassuring.

Where the rate of dying has declined may not yet be measurable in Ethiopia or elsewhere. What is certain is that hundreds of thousands more are receiving the basic foodstuffs and medicines that sustain life and restore health. This situation will remain viable only so long as a continuing supply of food and other relief supplies as well as the funds to move them are assured. Lives are still threatened and will be for at least the balance of this year.

Ethiopia, of course, has focused world attention on the African famine. In that unfortunate country, whatever other contributory causes there might be, it was drought that brought this tragic situation to a head. The absence of adequate rain beginning in 1982 limited the harvest, particularly in the northern provinces of the country. The drought continued over the next two years and ravaged successive harvests making the food supply increasingly tenuous and spreading hunger through more and more regions. What we Americans saw on television in late October was the direct human cost of these failures.

CRS has been active in Ethiopia for a generation. Our programs were generally small, containing both development projects and food and nutrition activities. In the face of the first crop failures, we began to expand our feeding activities on an emergency basis into Eritrea and Tigray in the north. By 1984 the size of our food program--with most commodities provided through PL 480 Title II--was 36,000 tons and reached about 750,000 people countrywide.

As the magnitude of the crisis grew, CRS joined together with three other church-related agencies--Lutheran World Federation, the Ethiopian Evangelical Church Mekene Yesus and the Ethiopian Catholic Secretariat--in a consortium called Churches Drought Action Africa/Ethiopia (CDAA/E). This

interfaith grouping was formed to launch a one year famine intervention program using the capabilities of private agencies active in Ethiopia so as to reach as many of those in jeopardy as possible in a manner that would enhance and complement the efforts of the government. CDAA/E has three major objectives:

- to improve worldwide awareness of the nature and gravity of the famine crisis facing the people of Ethiopia.
- to increase resources for famine relief offered through the NGO sector, to supplement bilateral and multilateral aid being given to the Government of Ethiopia.
- to support and expand existing NGO famine relief programs and, in consultation with the Relief and Rehabilitation Commission (RRC) of the Government of Ethiopia, establish new programs which will ensure the most effective distribution and utilization of increased food aid.

Each of the participating partners has taken responsibility for specific geographic regions of the country. They will in turn provide food and other relief supplies coming through CDAA/E to other NGOs working in their areas of responsibility. Other agencies currently participating in the program and receiving food through CDAA/E include Concern, British and Norwegian Save the Children, Jesuit Relief Services, Norwegian Church Aid, World Vision, Christian Relief and Development Association (CRDA), as well as several others.

CDAA/E, with CRS responsible for administration, logistics and accountability, has designed and put into operation a program which is aimed at the most vulnerable groups in famine afflicted areas:

- children under five years and lactating mothers.
- children so malnourished they need special feeding.
- the aged, handicapped, adults and families without any other resources and so severely afflicted by

famine that they cannot care for themselves--i.e., the destitute.

--famine affected groups who are able to do some community work (food-for-work programs).

With the exception of severely malnourished children in need of intensive feeding at selected sites, this program is based on a dry "take home"ration. The system is designed to allow children to remain in their families and families to remain in their villages, thus avoiding to the degree possible displacements of large populations or the congregation of great numbers of people around relief shelters.

We lay emphasis on discouraging concentrations of people in camps such as those at Korem and Bati which have received so much attention in the media. In the camps sanitary conditions are rarely adequate and at times nearly non-existent. Gathered together in such condition, people already weakened by hunger are easy prey to diseases such as dysentery, measles, meningitis and malaria which can run through the camps in epidemic proportions. Besides the health risks, involved, large gatherings at single sites are demoralizing to the people involved, disruptive of the social fabric and place enormous burdens on already hard-pressed local infrastructures called upon to deal with them. We therefore believe that wherever possible people should be provided with food in their own homes and villages where they will be able to return to farming when conditions permit.

The ration established by CDAA/E is designed to provide a family of five with a minimal survival ration of 1,400 calories per person per day--the minimum survival level--for a one month period. It contains the following elements:

Processed cereal	45.35 kgs
Non fat dried milk	4.00 kgs
Edible oil	3.60 kgs

Currently, we are not able to provide the full ration in the programs we support. The flow of food has not been sufficient to meet the projected levels and, as a result, the ration rate is about half or 800 calories. We will increase the level as soon as monthly food supplies are adequate to do so, hopefully in February.

CDAA/E is presently distributing 10,750 tons of food a month and during January will extend its programs through new requests for assistance to reach one million people throughout Ethiopia. Over double that amount is necessary to provide the full ration to all recipients. The full ration which in other cases would be used to supplement existing sources of food, is urgently required because in many areas of the country there is quite simply no food at all. Our target is a guaranteed supply of commodities at the rate of 27,000 tons for the next 12 months to reach 1.8 million people.

We have informed AID that we would look to the US Government for 225,000 tons. To date, we have requested and received approval for 53,000 tons. Our request for the balance has just been sent to AID. We and our partners have made requests for an additional 100,000 tons from Canada, Australia and The European Community.

The need for feeding programs on a large scale in Ethiopia is graphically obvious: without them, large numbers of people would die. Even as these programs are being carried out, however, there is a need nearly as pressing to begin to act through projects aimed at recovery. Most immediately, people now affected by the famine need to return to productive life as soon as possible, to be able to plant and harvest and otherwise to provide for themselves and their families. To do so, they will need tools, seeds, fertilizer, draft animals and other essentials to put in a crop and to have enough food to see them through until the harvest. Not all

those suffering the effects of the famine will be able to return to their land in the short term, the catastrophe is too large and widespread, but all who can must be helped to start again.

To this end, we at CRS has committed \$15 million of privately contributed money--some of it already spent--for costs associated with the emergency. Our projected expenditures will be for warehousing, trucks, temporary shelter, medicines and associated health needs, potable water systems and other similar needs. A considerable portion of the \$15 million will be spent on hand tools, seeds, draft animals and technical assistance to get a crop in the ground for the spring growing season.

Though international attention has focused on Ethiopia, the famine is, as I mentioned earlier, an Africa-wide phenomenon. Africa is today a continent in need of help and that urgently. According to the latest FAO estimates, the shortfall for Africa in the coming year is slightly over 2 million tons. In the most severely affected countries, the urgency is nearly as great as it has been in Ethiopia.

CRS has been working in Africa for thirty years or more. We currently have programs in 20 countries and support food and development activities in 11 others. For the past several years we have been the principal private food agency on the continent, handling 90 to 95 percent of the commodities available to PVOs. Based on our experience and, most recently, our work in Ethiopia in this emergency, we believe that the current situation has to be addressed, if it is to be addressed effectively, in a comprehensive manner by dealing with 1) immediate food needs, 2) programs of recovery and 3) commitment to long term development objectives. We cannot be content to stabilize the situation, but we must seek to attack the root causes of the current crisis so that these terrible human tragedies do not recur.

It will not be easy to do this and it will not be done quickly. As we have said before in other testimony on this subject, all those concerned will have to make determined exertions and stay the course over time. The African governments will be called upon to make difficult political and economic policy choices consonant with real developmental goals. Donor nations must be willing to commit resources over the long term through policies more informed by humanitarian concern than political interest. And we in the community of private voluntary agencies will have to increase our efforts--and our numbers--on the ground, investing funds and personnel in the types of grass roots development programs which have been our traditional strength.

We believe that the United States has a pivotal role to play in this process. The rapidity and generosity of the American response to the present crisis in Ethiopia and elsewhere is a measure of what we can do. CRS does not hold the view that the U.S. should or can do it all. We believe, however, that it should be possible--and worthy of us as a people--to contribute 50 percent of the necessary assistance for Africa. We have more; we can afford more. Moreover, as we have seen in the outpouring of concern from millions of Americans in the last few months, there is a will among the American people to take the lead in humanitarian assistance in Africa. At the 50 percent level, it is reasonable that the rest be done by others. Unfortunately, the response of other donors has been disappointing. For that reason, we support the Administration's call for an international conference aimed at closer agreement on the extent of the need and more equitable sharing of burdens.

Last year we advocated the \$150 million supplemental appropriation for Africa. Obviously, the need this year is much greater. At the rate resources--chiefly PL 480 Title II foodstuffs--have been committed so far, we face the prospect of being left without adequate food or funds early in the fiscal year unless there is new legislation. Any supplemental,

we believe, should be comprehensive, which is to say it ought to include provisions not only for food, but for urgently needed non-food aid such as inland transport, recovery and development programs and increased funding for the Office of Foreign Disaster Assistance. In this regard, we commend the committee's attention to HR 100 as a model of that approach.

We have not yet had an opportunity to review in detail the Administration's recent supplemental proposal. All we have seen to date is an outline released by the White House Press office. On its face, the proposal appears to us to fall short of the need in Africa and the capacity to respond in this country. We will welcome an opportunity to examine the package when all of the elements have been elaborated.

Let me add just one comment on an administrative point. While we and the other agencies involved will be doing our level best to provide what help we can in Africa, we would be greatly helped if some means could be found to simplify procedures within the U.S. Government in allocating resources. Currently, requests for food are approved separately from requests for funds for in-country distribution. It would be more efficient for private agencies and, we think, desirable for the government if a one-step procedure could be initiated so that all food-related resources could be passed on and made available at the same time.

As I said, it is not only governments who must make greater exertions in the face of the African famine. We in the private agencies must do so as well. Apart from the \$15 million earmarked for programs in Ethiopia, we at CRS are now in the process of formulating an Africa-wide strategy. As part of that effort, we have identified three areas of primary emphasis for our own operations: agricultural productivity, water management and reforestation. This emphasis, we believe, speaks directly to African needs, lends itself to programming at the grass roots level and can be operated effectively

through CRS networks throughout Africa. We are prepared to make a major commitment of privately contributed funds and people to enhance our programming in these areas and will be seeking the cooperation of other agencies both here and in Europe in the effort. We hope there will be proportional commitments from the U.S. Government so that all American resources can be coordinated for maximum result.

In Ethiopia and elsewhere in Africa there is more than enough that needs doing. All those concerned must pull together to ensure the greatest benefit to those most in need. That, I think it is fair to say, is what the American people want, as they showed in their unprecedented response to those terrible images of suffering from Ethiopia.

The CHAIRMAN. Thank you very much, Mr. McCloskey.

We will now hear from Dr. Cory SerVaas, who is a distinguished constituent of mine and has been a personal friend for many years. It is good to have you here this morning.

STATEMENT OF CORY SERVAAS, M.D., EDITOR AND PUBLISHER, SATURDAY EVENING POST, INDIANAPOLIS, IN, ACCOMPANIED BY DR. EDWIN MERTZ, PURDUE UNIVERSITY

Dr. SERVAAS. Thank you, Mr. Chairman.

Not all the deaths that you see on television in Ethiopia are from starvation. I have personally experienced one of the most horrendously, excruciatingly painful illnesses, that I contracted in Ethiopia while I was working in a redistribution center outside of Addis Abbaba. It affects the central nervous system. It has a tremendously excruciating bad headache. Fortunately I called the Center for Disease Control, because I said, if this is West Nile Fever, why am I dying from septicemia? I knew I could not live another night. I signed my will.

The disease is called typhus, which means "stupor," so that it affects your central nervous system, and I am recuperating. But I want to get this message out because there is a magic bullet. It was on my shelf all along. My temperature was down to 95. My blood pressure was down to 89 over 54, and I was in pools of wet, cold, chill sweat. I was ready to go into septicemia and die, and a friendly call came from Purdue University from a man who travels around the world, and he said "I have heard of your problem." He said, "I know how hard it is, because doctors in this country do not know how to treat what happens to you in Africa." He said, "Call the Center for Disease Control; this is an emergency weekend number" This was between Christmas and New Years.

I called the Center for Disease Control and a man answered and told me that my cough and symptoms sounded like typhus, and that they had heard rumors there is an epidemic of typhus in Ethiopia and they were sending a task force to find out about it, be-

cause they cannot find out the facts from the Marxist government there. I know that it is not just the facts—that the Marxists are not cooperative; they just do not have doctors.

I was the only doctor for 2 days, no doctor, no nurse, in a redistribution center with many kwashiorkor children who could be saved with our high-lysine corn. That is why I went to Ethiopia, to look at high-lysine corn possibilities for kwashiorkor, a protein deficiency.

When I called the Center for Disease Control and they said, get doxycycline—it is a kind of tetracycline, which is an innocuous drug that my daughter used for acne prevention prophylactically, it is that safe—I had it in 10 minutes and I took it, and my fever went down. I have my fever chart, and this sustained high temperature—and here was the day I died nearly, the night I died, and my temperature was pouring upward and it crashed right down.

And he said: "Doxycycline will cure you in 24 hours if you have typhus." And there went my temperature down, down, down, and I have been recuperating for 2 weeks because I got it late, and I did nearly die.

I want everyone to know that we could have wiped out typhus. I called the World Health Organization in Geneva and I asked them about typhus and they said:

Yes; 90 percent of the typhus is in Ethiopia, and we have been printing this in our bulletins. In 1983, 90 percent was. The incidence is expected to have been much higher in 1984, we don't have numbers. And in 1985 it is going to be much worse.

Then I called the Walter Reed Medical Center here in Washington about this to help my case, to treat it, and they also sent me a letter saying that typhus is the most virulent disease affecting mankind, it is tragic that it still exists.

Since early 1970, it was only in Ethiopia and maybe just in a few places in Bolivia and Peru in the mountains. We could have wiped it out like we wiped out smallpox. The reservoir of infection was so small that it could have been eradicated, and we can eradicate it now.

But, unfortunately for Africa and the world, it is spread widely now throughout Africa, and it goes with famine. It is louse-borne, transmitted by lice. It will continue to wreak havoc unless we send doxycycline prophylactically and get it to the camps.

So all relief organizations, I am urging, if you can see my condition, to assist in sending large supplies of doxycycline. It is a safe antibiotic and inexpensive—it is generic—which can be used to stem the typhus epidemic in Ethiopia, which has 90 percent of the typhus. Those people die a tremendously painful death. The photophobia is so excruciatingly painful, you cannot stand the light. Imagine having it in the Sahara. I had to wear blinders.

Unless diagnosed and treated with doxycycline, epidemic typhus is a life-threatening disease and it is universally fatal for the elderly.

Now, I did not mean to get into this, except I think it is so important. I went to Ethiopia with Rev. Peter Michael to investigate the incidence of kwashiorkor among the children. We went because we are sure that thousands of toddlers have died from this needless

disease, and it could be prevented with high-lysine corn developed at Purdue University.

The Benjamin Franklin Literary and Medical Society is a non-profit organization providing health information to the general public. It is advocating a plan to help solve the African famine, both immediate and long range.

First, high-lysine corn—currently available in the United States could be sent to Ethiopia and earmarked for children, whose need for protein is vastly greater than that of adults. Out in Iowa on the farm we have chick starters and we have pig starters, but in Ethiopia we need kid starters.

Midwest U.S. farmers have about 1 million tons of high-lysine corn stored for onfarm use. The USDA has a far higher tonnage of normal corn stored as surplus grain, and this is our proposal to the U.S. AID and the USDA and the Secretary of Agriculture:

Offer Midwest farmers 105 to 115 tons of surplus stored normal corn for each 100 tons of high-lysine corn. Earmark high-lysine corn for infants and children only in Ethiopia and other distressed areas, and then send surplus normal corn for the adults. A 15-percent premium would be a bargain for a corn that is 50 to 100 percent better for infants and children. I understand that in South Africa they do just that. They give a premium for high-lysine corn.

The word "kwashiorkor" that the kids get comes from a tribe in Ghana, and it means "the sickness the baby gets when the next baby is coming." That's because the baby does not get the lysine in the milk, the amino acids it needs, when it goes off the breasts. The disease most commonly develops after weaning and the child goes on a protein-deficient diet consisting mainly of root starches, rice waters, teff, and lysine-deficient maize or corn.

A protein-deprived child suffers in many ways. His nervous system deteriorates because the protein needed to build nerve cells in his brain is consumed in energy. His muscle tissue has been burned up for energy. His skin becomes depigmented and reddish. His legs swell. His hair turns from black to red and falls out easily. Nurses call it pluckable hair.

His immune system weakens, making the child susceptible to any disease he contracts. These children behave very much like they have AIDS. They die from measles, cholera, and any infection that comes along.

High-lysine corn may be the quickest and cheapest way to get the essential amino acid into their diets. It is as important, we believe, as the discovery of short-stemmed wheat was, that brought a Nobel Prize for Dr. Norman Borlaug and brought India out of starvation.

We brought with us today Dr. Edwin Mertz—he is in the audience—who discovered high-lysine corn at Purdue. We believe that he will receive the Nobel Prize for this great accomplishment.

We have also brought with us today Mr. Kenneth Crowe, who persevered for many years when all the large seed corn companies gave up. Practically all of them gave up on high-lysine corn, but because he is a man of great compassion for people in underdeveloped parts of the world he persevered, at great expense, to bring this up to where today it makes hybrid corn level of yield as great as the ordinary corn, as many bushels to the acre.

High-lysine corn contains twice as much amino acid as regular corn, and in future planning it would play a very important role because it has been recently shown to outproduce other varieties in a dry season in Kentucky. Hybrid corn would give a far larger yield of ordinary corn, but because each crop must be planted with new hybrid seeds most of the missionaries, well-meaning helpers of the farmers, have said that families could not be responsible for buying new seed each year.

But with appropriate education, we could provide a program suggested by Richard Schubert of the American Red Cross when he observed that people in the feeding centers are a captive audience that could be taught by videocassette and films on large screens with sound systems, so they could be taught how to use hybrid corn and high-lysine corn.

In summary, Mr. Chairman, we recommend that Africa be made more self-sufficient by helping them grow high-lysine corn, which has already been perfected for tropical climes in Central and South America.

[Attachments to Dr. SerVaas' statement follow:]



The Saturday Evening Post
· SOCIETY ·

FOR IMMEDIATE RELEASE
January 18, 1984

Contact: Cory SerVaas, M.D.
Madison Hotel (202) 862-1600
(Through January 21, 1985)

SOCIETY ADVOCATES PLAN TO AID ETHIOPIANS

Indianapolis, Indiana--Dr. Cory SerVaas, editor and publisher of *The Saturday Evening Post*, and the Rev. Peter Michael, director of educational services, traveled last month to Ethiopia. In addition to calorie-deficient starvation, they found a protein deficiency, kwashiorkor, among the children. This protein deficiency could be prevented with high-lysine corn.

The Benjamin Franklin Literary and Medical Society, a nonprofit organization providing health information to the general public, is advocating a four-point plan to help solve the African famine, both immediate and long-range.

First, Ethiopia could combat the dreaded kwashiorkor in African children with the use of lysine in three forms:

(a) Fermented lysine in powder form could be used immediately as a supplement to the grain diet, with dramatic consequences for starving children.

(b) High-lysine corn meal currently available in the U.S. could be sent to the hungry families in Ethiopia and incorporated into their regular diet.

(c) High-lysine seed corn, being hybrid, could vastly increase next year's corn production as well as nearly double the amount of protein in the corn available to feed those with protein deficiency.

Second, the government of Ethiopia should substitute high-lysine corn for its tobacco crops.

Third, the Ethiopian government should provide nicotine-containing gums or lozenges to remove the addiction from the population now smoking cigarettes, so that its health-care system will be able to serve the starving sick. Many millions of dollars must otherwise be spent on health care brought about by the smoking that is being encouraged without warning notices on cigarette packages and ads in Ethiopia.

Fourth, the plan also urges the subsidy of high-lysine corn instead of tobacco for U.S. farmers who own tobacco allotments but choose instead to plant the high-protein corn to feed the starving. This plan would urge the U.S. government to substitute tobacco subsidies for high-lysine amaranth or triticale in addition to high-lysine corn.

In addition, the U.S. government could save billions in health care by providing free nicotine-containing gum or lozenges to help those who are addicted to the health-destroying habit of smoking.

The word "kwashiorkor" comes from a tribe in Ghana and means "the sickness the older child gets when the next baby comes." The disease most commonly develops after weaning, when the child goes on a protein-deficient diet consisting mainly of root starches, rice waters, teff and lysine-deficient maize.

A protein-deprived child suffers in many ways: his nervous system deteriorates because the protein needed to build nerve cells in the brain is consumed in energy, his muscle tissue has been burned up for energy, his skin can become depigmented and reddish, his hair turns from black to red and falls out easily, and his immune system weakens, making the child susceptible to any infection he contracts.

Dr. SerVaas says it is especially important that the babies and young children be given high-protein grains to prevent kwashiorkor disease.

High-lysine corn may be the quickest and cheapest way to get the essential amino acid into their diets. The corn, says Dr. SerVaas, "is as important as was the discovery of short-stemmed wheat that brought a Nobel Prize for Dr. Norman Borlaug and brought India out of starvation and to self-sufficiency in food production."

High-lysine corn contains nearly twice as much of the essential amino acid lysine and other amino acids that provide the protein needed for building body muscles, brain cells and the rebuilding of every organ in the body. In future agricultural planning, high-lysine corn could play a very important role in preventing famine, because it has recently been shown to outproduce other varieties in a dry season.

In commenting on high-lysine hybrid corn, Dr. SerVaas pointed out that hybrid corn would give a far larger yield than ordinary corn. Because each crop must be planted with new hybrid corn seeds, most of the missionaries or well-meaning helpers of the farmers have said that families couldn't exercise the care needed for high-yield hybrid corn.

However, appropriate education could be provided by the Red Cross program as suggested by Richard Schubert, president of the American Red Cross. He suggests that the people in the feeding centers are a captive audience that could be taught by video cassettes or films thrown on large screens with a sound system. They could be taught how to use hybrid corn by such methods.

Indiana is important in lysine research. Dr. Edwin Hertz of Purdue University discovered high-lysine opaque-2 corn. Dr. Richard Griffith at the Indiana University School of Medicine has probably done more extensive work on the beneficial uses of lysine for humans than any other scientist in the country. The Benjamin Franklin Literary & Medical Society has just received notice that its paper on the results of the lysine experiment with AKR-strain leukemia mice has been accepted for publication in AntiCancer Research.

The Benjamin Franklin Literary & Medical Society will sponsor a two-day lysine symposium with Indiana University and Purdue University in February 1985.



The Saturday Evening Post
 SOCIETY

January 18, 1985

Contact: Cory SerVaas, M.D.
 Madison Hotel (202) 862-1600
 Through January 22, 1985

A WARNING OF LETHAL TYPHUS IN ETHIOPIA

Having narrowly escaped a fatal outcome of typhus, Cory SerVaas, M.D., editor and publisher of *The Saturday Evening Post*, warns that physicians in the United States who are unfamiliar with tropical medicine should be alerted to possible deaths from this epidemic louse-borne typhus fever.

The Walter Reed Army Medical Center reports that typhus is one of the most virulent diseases affecting mankind. Unfortunately for Africa (and the world) this disease has spread widely in Africa due to famine and war and will continue to wreak its havoc for years to come.

The World Health Organization in Geneva reports that 90% of the typhus cases in the world in 1983 were in Ethiopia. The incidence is expected to increase in 1985.

The CDC in Atlanta, Georgia, has been unable to get information on the incidence of typhus from the Ethiopian government.

Dr. SerVaas recommends that travelers to Ethiopia take doxycycline with them, which is specific for the *Rickettsia* organism that causes typhus.

-more-

BEST COPY AVAILABLE

Typhus fever has afflicted mankind since ancient times. The plague of Athens in 430 B.C. is believed to have been epidemic typhus. The ravages of typhus have characteristically been even greater among medical personnel than among the general population. In 1915 in Serbia, virtually all of the more than 400 physicians in the country contracted typhus during an epidemic, and 126 died. Typhus is almost invariably fatal among the elderly unless treated.

Doxycycline is a magic bullet, a specific antibiotic for typhus, but a patient misdiagnosed as having one of the many insect-borne African viruses would not be given the antibiotic and would be in grave danger. The lifesaving antibiotic should be administered to anyone coming from Ethiopia with excruciating, intractable headaches, sustained high fever with pulse lower than expected for the amount of fever, unproductive dry cough, chills, photophobia (sensitivity to light), blood pressure going below normal, stupor or delirium, skin rashes and oliguria (decreased urine output). One dose can be curative in as little as 24 hours, and the prognosis for complete recovery is good. The drug is almost completely harmless and should be started immediately. Withholding treatment until antibodies rise would be too late.

Medical personnel and press returning from Ethiopia are urged to have their doctors discuss the symptoms with the Center for Disease Control (CDC) in Atlanta at 404/329-3311, or the Walter Reed Army Medical Center Division of Tropical Public Health in Bethesda, Maryland, at 202/576-2146.

Dr. SerVaas, a medical doctor, said she is recovering from a potentially lethal form of typhus contracted in Ethiopia. She credits the saving of her life to a call from a stranger she has never met. The call came from Prof. John D. Axtell, a specialist in genetics at the Department of Agronomy, Purdue University. Dr. Axtell had been working with Dr. Gebisa Ejeta, an Ethiopian geneticist at Purdue. Dr. SerVaas has been consulting with Dr. Ejeta on high-lysine corn research and had called him, seeking help to treat her illness.

BEST COPY AVAILABLE

"John Axtell heard about it and he knew the problem because he had traveled all over the world and contracted diseases unfamiliar to U.S. physicians. He told me to call a weekend emergency telephone number for the CDC in Atlanta."

From the CDC she learned of the typhus fever and the doxycycline. CDC doctors had heard rumors about a typhus epidemic in Ethiopia. But they said Ethiopian officials have been uncooperative in releasing information to the United States and they plan to send a task force to that country to learn about a possible typhus epidemic.

She has also alerted American Red Cross officials who are investigating the problem. She said she wants to share the information with U.S. doctors and with persons having gone or going to Ethiopia.

Dr. Servaas said many physicians in the United States are unfamiliar with tropical medicine and should be alerted to possible deaths from this typhus spread by lice or ticks and should know that waiting for a positive diagnosis could be fatal. She said she had the "classic symptoms--excruciating, intractable headaches, spiking temperatures going far below normal, violent chills, a dry cough, low pulse, photophobia and rash on the trunk.

"When I became ill a week after returning from Ethiopia, I was diagnosed to have West Nile Fever, which is a viral disease for which there is no antibiotic therapy. No one suspected typhus, a dread disease of antiquity, which has wiped out whole populations," she said.

In response to The Saturday Evening Post's urgent request, Pfizer Pharmaceutical and the Lederle Laboratories have each donated \$100,000 worth of doxycycline, which was flown to the Sudan Interior Mission in Addis Ababa this week on a chartered Pan American plane. The Saturday Evening Post/Benjamin Franklin Literary and Medical Society is attempting to send doxycycline to the mission, one of the largest mission groups in Africa. Dr. Servaas urges relief groups to send doxycycline which could be used in the camps.

BEST COPY AVAILABLE

"Typhus has played a major role in history," said Dr. SerVaas. It has been far more effective in wiping out armies than man's best-devised war machines. Epidemics in Eastern Europe and Russia in the short period between 1918 and 1922 accounted for 30,000,000 cases and 3,000,000 deaths.

Typhus is caused by a micro-organism called Rickettsia. This microbe is ingested by the louse as it sucks the blood of an infected person. The germs rapidly multiply in the parasite's intestinal tract. Typhus is not transmitted from man to man but from man to insect to man. It requires the insect vector to complete its life cycle. The insect bites the person with typhus and then the insect bites another person without typhus and inoculates him with the organism. It is particularly prevalent in famine areas where people are living in highly unsanitary, crowded conditions. Unlike some viral afflictions that are devastating for the malnourished but less harmful to the well-nourished, typhus is a lethal disease for the well-nourished as well.

Once inside the body, these unwanted guests begin to work their mischief. More toxic than most bacteria, these tiny organisms have characteristics of both viruses and bacteria. They are lethal in just a few hours to mice infected with them. When the Rickettsia-infected louse kills its victim it leaves that corpse in search of a warm body with blood that is flowing. It bites the new host and spreads the lethal organism from corpse to each new victim.

"Excellent medicine is practiced in the state of Indiana. It is just that U.S. physicians have no experience treating patients with epidemic louse-borne typhus," said Dr. SerVaas. For those fortunate enough to have access to physicians familiar with African medicine, doxycycline is a magic bullet.

Anyone wishing additional information about sources of help for typhus may call the Benjamin Franklin Literary and Medical Society, (317) 636-8881, and ask for Delamar Gibbons, M.D., Joseph P. Watkins, the Rev. Peter Michael or Cory SerVaas, M.D.

BEST COPY AVAILABLE



The Saturday Evening Post
· SOCIETY ·

January 18, 1985

Contact: Cory SerVaas, M.D.
Madison Hotel (202) 862-1600
Through January 22, 1985

· ESCAPE FROM DEATH ·

VIRULENT EPIDEMIC TYPHUS IN ETHIOPIA

Having narrowly escaped a fatal outcome of virulent epidemic louse-borne typhus fever, Cory SerVaas, M.D., editor and publisher of The Saturday Evening Post, warns that doxycycline, a magic bullet for this disease, should be sent to Ethiopian refugee camps immediately. Medical workers, volunteers and press traveling to Ethiopia should be alerted to take doxycycline with them to Ethiopia, Dr. SerVaas urges. Should their fevers be diagnosed as viral and not treated with doxycycline, they could quickly die from typhus.

Dr. SerVaas nearly died as a result of epidemic louse-borne typhus she contracted working in refugee distribution camps in Ethiopia last month. U.S. doctors, unaware of the epidemic, had diagnosed her case as a virus, West Nile Fever, which is not treated with an antibiotic. She has just recovered and will recount the experience at a press conference Friday, January 18, at 10 a.m. in the East Room of the National Press Club. De Lamar Gibbons, M.D., and Carol Lynn Carter, R.N., who attended Dr. SerVaas during her illness, will also be present at the conference.

The World Health Organization in Geneva reports that 90% of the typhus cases in the world in 1983 were in Ethiopia. The incidence is expected to increase in 1985.

-more-

The Walter Reed Army Medical Center reports that typhus and relapsing fever are among the most virulent diseases affecting mankind. "It's tragic that they still exist since until the early 1970's they were present only in Ethiopia in Africa and perhaps the mountains of Bolivia and Peru. The reservoir of infection was small and could have been eradicated by applying the methods used to eradicate smallpox. A highly effective vaccine for epidemic typhus was developed in the United States after World War II which could have been used in an eradication campaign in Ethiopia and the highlands of central Africa (one-half million doses of this vaccine are still in storage at the Walter Reed Army Institute for Medical Research in Washington, D.C.). Appropriate use of inexpensive antibiotics together with the typhus vaccine to contacts of infected typhus or relapsing fever patients could have eliminated both diseases. Unfortunately for Africa (and the world) these diseases have spread widely in Africa together with famine and war and will continue to wreak their havoc for years to come."

Dr. SerVaas urges all the relief organizations to assist in sending large supplies of doxycycline (a tetracycline), which can be used to stem the typhus epidemic in Ethiopia. Unless diagnosed and treated promptly with doxycycline, epidemic typhus is a life-threatening disease and it is universally fatal for the elderly.

Dr. SerVaas went to Ethiopia to work on the prevention of kwashiorkor, a disease of toddlers caused when children receive a diet adequate in calories but insufficient in protein. High-lysine corn, developed at Purdue University, could prevent many deaths from kwashiorkor because it delivers nearly twice as much quality protein. It should be earmarked for feeding of children, since regular corn can sustain adults but toddlers who require a great deal more protein cannot survive on ordinary corn. Dr. Edwin Mertz, who developed high-lysine corn at Purdue University, will also speak at the press conference.

PURDUE HIGH-LYSINE CORN RECIPES

The best of both worlds would be a high-fiber and high lysine diet. Thanks to Purdue University's Dr. Edwin Mertz this nutritionists' utopia may soon be realized.

by Cory SerVaas, M.D.

Synopsis. Indiana University dermatologists use lysine and a low-arginine diet to suppress herpes recurrences, thus eliminating a major discomfort, embarrassment and disfigurement that many Americans experience today from fever blisters and genital herpes.

Our Society laboratory and one in Budapest, Hungary, have worked on the theory that high lysine supplementation might suppress cancers. It has been hypothesized that some cancers may come from a herpes type of virus.

Well, it couldn't happen at a better time—high lysine cornmeal—just when we're looking for ways to increase the lysine and decrease the arginine in our diets.

My cup runneth over. Surely we will soon be able to tell whether a high-lysine/low-arginine diet might prevent cancers and whether it does in deed prevent replications of the herpes virus in humans.

We have Purdue University and in particular, Dr. Edwin Mertz and his colleague, geneticist Dr. Oliver Nelson, to thank for this discovery. They certainly deserve a Nobel Prize for their contribution to mankind and we hope they receive it.

The potential of high-lysine corn to prevent the malnutrition deaths of millions of children whose diet is primarily maize has already been proven in South America and Africa, where children die from lack of this essential amino acid. In these continents, high-lysine corn, which contains 100 percent more lysine, can make the difference between life



Nutritious dishes to put high lysine corn in your diet: muffins, corn pie, cornmeal pancakes, corn bread and soufflé (nearest camera), my favorite.

and death. Humans do not synthesize any lysine in their bodies, but it is essential for growth and for life.

Since Dr. Norman Borlaug won the Nobel Prize for developing short-stem wheat that brought India out of starvation, surely Drs. Mertz and Nelson equally deserve the prize for this comparable breakthrough.

As our *Post* readers know, our interest in lysine began when the chairman of our dermatology department at Indiana University was having good success over a ten-year period in treating herpes patients

with high-lysine/low-arginine diets.

Subsequently, our mail has convinced us that we have helped many people by letting them know about this simple and safe remedy. I'll share this letter with you because letters like this reinforce my determination to accelerate our investigation:

Dear Dr. SerVaas:

I must write and tell you what taking L-lysine has done for me. For two years I was having fatal herpes badly. It came every two months. One batch would just cease for a while and another attack would occur. I was in a terrible state as it went into my throat and I could not eat or swallow without the greatest difficulty. I went to a doctor and he said he couldn't help me or recommend anything. Then one morning my telephone rang and a friend of mine asked me if I had *The Saturday Evening Post*. She said there was an article in there that sounded so authentic that I should read it.

She brought it to me (in a heavy rain). I read it eagerly and went to the drug store immediately and bought a bottle (right off the counter) and started taking one after each meal. And following the diet given. It seemed to check it right away and I haven't had an attack since—a year now. I had been eating a lot of peanuts and whole wheat products. I ate nothing else but whole wheat bread, crackers and cereals. I am so grateful to you for your article. I have been passing the word to every one I know. The druggist told me that they have a terrific run on

BEST COPY AVAILABLE



Dr. Edwin Mertz is our favorite candidate for the Nobel Prize for his discovery of high-lysine corn. Dr. Mertz modestly credits his co-worker, Dr. Oliver E. Nelson, and others, including a small family-owned seed company which persevered to develop the seed corn and the producers of the amino acid analyzer. Dr. Mertz first read the exciting results of his lysine breakthrough on the amino acid analyzer shown above. "After 15 years of tedious work, the equipment suddenly made the discovery possible," he says. "We couldn't have succeeded without it."

L-lysine, can hardly keep it in stock. So many others must have had the same thing and to think it had been there all the time and I didn't know about it! Thanks again for your great work. Keep it up. I will help in any way I can. I am 80 years old.

Mildred G. Werner
Wells, Minnesota

With so many people being helped by high-lysine/low-arginine ratios, we should have large numbers of people on this regimen to decrease the pool of active herpes infections in our population. In addition, we are experimenting with cancer-prone mice on high-lysine/low-arginine diets to see if high lysine increases the body's auto-immune mechanisms to prevent cancers.

The good news is that this high-lysine cornmeal makes delicious dishes. The flavor is better and it contains more gluten so that the corn bread holds together without

crumbling as much when it is spread. It is sweeter tasting, too.

Hopefully, the large cereal manufacturers will put this product on the market in the near future.

High-Lysine Corn Meal Souffle (Makes 4-5 servings)

3 cups skim milk
2 tablespoons vegetable oil or margarine
1 cup high-lysine cornmeal
1 egg yolk
4 egg whites
½ teaspoon cream of tartar
Scald the milk. Add the margarine. Slowly add the meal, stirring constantly. Cook 1 minute after adding the last of the meal, still stirring add the beaten egg yolk. Beat the egg whites and cream of tartar until stiff and fold into the cornmeal mixture. Pour into a coated 2-quart casserole. Bake 35 to 40 minutes at 350° F. Serve immediately.

Broccoli & Corn Casserole (Makes 6 servings)

½ cup high-lysine cornmeal
2 medium bunches broccoli
2½ cups nonfat buttermilk
1 tablespoon low-sodium baking powder
5 large egg whites
3 tablespoons frozen apple juice concentrate

Cheese sauce

Cook the broccoli florettes in a covered saucepan using a small amount of water until tender, about 5 minutes. Drain. Pour the buttermilk into a pan with the cornmeal. Stir until blended. Cook over low heat until thickened. Add the apple juice concentrate and the baking powder. Cool slightly. Beat egg whites until stiff. Fold gently into the cornmeal mixture. Cover the bottom of a casserole with half the broccoli. Add a layer of cornmeal mixture. Arrange a second layer of broccoli and cover with the remaining cornmeal. Bake at 375° F. for 45-50 minutes, or until cooked through. Serve with farmer or hoop cheese sauce.

Cheese Sauce

1 tablespoon cornstarch
½ cup farmer cheese, grated
1 cup low-fat milk
¼ teaspoon curry powder

Dissolve the cornstarch in the milk until it is smooth. Cook over low heat until thickened. Add cheese and curry powder. Stir until cheese is melted and smooth.

Corbeane Pie (Makes 6 servings)

Crust:
2 cups high-lysine cornmeal
2 tablespoons nutritional yeast
3 tablespoons oil
½ cup water and 1 teaspoon Gaylord Hauser's® Swiss Broth or ½ cup vegetable stock

Filling:

1 medium-size onion, chopped
½ cup carrots, chopped
½ cup celery, chopped
1 teaspoon garlic powder
½ cup green peppers, chopped
1 tablespoon oil
1 cup kidney beans, cooked
1 teaspoon chili powder
1 tablespoon cumin
½ cup tomatoes, topped
2 tablespoons Tarragon® soy sauce
½ cup farmer cheese, grated

BEST COPY AVAILABLE

Preheat oven to 350° F. Mix together all ingredients for crust and pat into a coated 9" pie plate. Sauté onion, carrots, celery, garlic and green peppers in oil about 5 minutes. Add beans and spices and put into cornmeal crust. Combine tomatoes with Taman® and pour over the beans. Bake about 25 minutes. Remove from oven, sprinkle with cheese and bake 5 minutes longer.

Mexican Cornbread (Makes 6-8 servings)

1 cup high-lysine cornmeal
½ cup whole-wheat flour
2 teaspoons unsulphured molasses
2 teaspoons low-sodium baking powder
½ teaspoon salt substitute
1 egg
1 egg white
1 cup milk
1 onion, grated
2 jalapeno peppers, chopped
¼ cup unsaturated oil
1 cup sharp cheese, grated
Mix all the ingredients and pour into a coated, hot 8" x 8" pan. Bake at 375° F. for 40 minutes or until brown and crisp on top. Eat hot.

Corn-Bread Stuffing (8 to 10 cups of stuffing)

High-lysine corn bread, broken into crumbs
1 cup onion, finely chopped
1 cup celery, finely chopped
1 cup margarine, melted
2 cups soft whole-wheat bread crumbs
½ teaspoon white pepper
1 teaspoon poultry seasoning
½-1 cup hot water

Make the corn bread unless you have some left over. You will need 8 to 10 cups of crumbs, depending on how the stuffing is to be used. Sauté the onion and celery in the hot shortening until the celery is almost tender. Add the corn bread, bread crumbs and seasonings and toss lightly to mix. Sprinkle the hot water over the top. (If you prefer a dry stuffing, add ½ cup. Increase the amount of water for a more moist dressing.) Toss until blended. Taste for seasoning and use as directed.

Cornmeal Pancakes (Makes 4 servings)

½ cup high-lysine cornmeal
½ cup whole-wheat flour
1 teaspoon baking powder

1 tablespoon margarine
½ cup buttermilk
1 egg
2 tablespoons cranberry-orange relish for topping

Blend together in mixing bowl the cornmeal, flour and baking powder. Make a well in the center and add buttermilk and egg. Beat just to moisten the flour. Beat in melted margarine. Bake on nonstick griddle

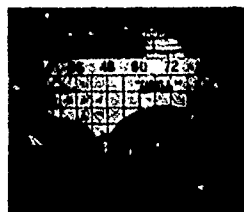
High-Lysine Cornbread (Makes 6-8 servings)

3 cups high-lysine cornmeal
1 teaspoon salt substitute
3 tablespoons unsaturated oil
2 cups boiling water
1 cup milk
1 egg, beaten
3 teaspoons low-sodium baking powder

Mix the cornmeal, salt substitute and oil together. Pour boiling water over the corn meal mixture and stir until well mixed. Add the milk to the mixture and set aside to cool, about 40 minutes. When cool, stir in the egg and baking powder. Pour into a hot, coated 8" x 8" pan or muffin tins. Bake at 425° F. for 30 to 40 minutes. Eat hot.

Most recipes which call for flour, such as for stews, thickenings, gravies, etc., can be made by replacing one half of the flour with high-lysine cornmeal. It can also be mixed with other grains in cooked cereals such as cream of wheat, oatmeal or oat bran.

All of our recipes were made from high-lysine cornmeal which was obtained from Crow's Hybrid Corn Company, the company to which



These pigs came from the same litter. The larger pig had been given high-lysine corn and gained five times more weight in a 45-day period than his twin, who was fed regular corn.

Dr. Mertz gives full credit for having patiently developed it. This small family-owned company persisted with its effort to make something practical out of the discovery long after the other hybrid seed companies had given up. Hybrid corn is judged by the amount of bushels per acre it can produce, and the Crow family has, each year, improved the yield of the high-lysine seed. They did it by assigning one researcher, Dr. Lester Schaible, to work full-time on this important problem.

In 1946, during his first year as a professor at Purdue University, Dr. Edwin Mertz began his corn studies. Wheat, rice and corn are the three most prominent grain crops in the world. Since grains provide 70 percent of the world's protein consumption, Dr. Mertz reasoned that by improving the protein level of corn he could help solve the world food shortage problem. All previous attempts at breeding protein improved corn varieties had been unsuccessful.

The most serious deficiency in corn is its low level of lysine, an essential amino acid that man, pigs, chickens and other nonruminant animals do not synthesize and must obtain from their food. Scientists around the world had been working on making a better corn for years.

In 1961 Dr. Mertz was joined in his search by geneticist Dr. Oliver E. Nelson. Two years later, in November 1963, their research team noted a spontaneous mutation that produces a highly desirable, nutritive effect.

They isolated the gene that causes the mutation and called it *opaque-2*. Dr. Mertz and his associates found that the gene, when introduced into an ordinary strain of corn, could nearly double the kernels' lysine content.

Not only was there an increase in the lysine content, but happily there was also a significant increase in tryptophan, another important amino acid.

The development of hybrid high-lysine corn had begun. The laboratory tests proved the high-lysine corn was indeed a dramatic improvement over ordinary corn as a food.

It has the potential for eliminating kwashiorkor in countries where corn is the primary diet. Corn provides ample calories, but because it is inadequate in amino acids, primarily lysine, the children get bloated

stomachs, large livers and red hair. They die unexpectedly.

High-lysine corn can have miraculous effects on these malnourished children. It was tested on an emaciated young boy brought to a Columbian hospital in 1967. The doctors gave him no hope. He had been existing on a typical poverty-level diet of corn gruel and corn soup. The hospital served him the same diet, but substituted corn high in lysine and tryptophan. His condition improved im-

mediately. Not only did he gain weight, but his bones began growing again as well. In three months, he had recovered completely.

Dr. Mertz has continued his research on cereal grains at Purdue University, where he is working as a consultant to the Department of Agronomy.

Dr. Oliver Nelson is currently working in the genetics department at the University of Wisconsin.

For their tireless devotion to an

idea and their contribution to mankind, we are writing to suggest the nomination of Dr. Edwin T. Mertz and Dr. Oliver E. Nelson for the Nobel Prize. Anyone wishing to help us in accomplishing this goal should write in behalf of their nomination to:

Nobel Prize Committee,
c/o C.G. Bernhard
FACK,
S-10405
Stockholm, Sweden.

BEST COPY AVAILABLE

1-01

[From the Saturday Evening Post, May/June 1984]

THE CORN THAT'S MAKING A WORLD OF DIFFERENCE

Many cross-fertilizations after he first planted the seeds for better worldwide nutrition, the discoverer of high-lysine corn takes a look at its global impact.

(By Dr. Edwin Mertz)

When my coworkers and I at Purdue University announced the discovery of a new breed of corn that was high in lysine, we knew it had the potential to prevent malnutrition and improve livestock production around the world.

The *Post* has already reported on the effect of high-lysine corn in the United States. Crow's Hybrid Corn Company of Illinois spent more than a decade developing a high-yielding, disease-resistant line of hybrids acceptable to the American farmer. U.S. farmers now plant about 500,000 acres of high-lysine corn annually, all of which stays on the farm for animal feed.

But what's happening in other countries is perhaps more exciting. If the success of high-lysine corn is measured by the amount of papers it's generated around the world, it's made quite an impact. The Commonwealth Agricultural Bureau in England has published 1,450 abstracts of papers about high-lysine corn since 1964. These abstracts summarize work done in 57 countries and averages out to six papers a month every month for 20 years! To find out what all this research work means in human terms, I asked Dr. Ronald P. Cantrell, former professor of agronomy at Purdue University and now director of the Maize (corn) Program at CIMMYT, the International Maize and Wheat Improvement Center located at El Batan, Mexico.

In 1970 CIMMYT was given the task of developing tropically adapted high-lysine corn that would be high yielding and completely acceptable to the poor farmers in developing countries. With the exception of Andean farmers, who prefer a floury corn similar to Crow's high-lysine hybrids, the farmers in tropical and subtropical areas raise only a hard, flinty type of corn. They would not accept the floury type, so it became necessary for CIMMYT to embark on a long and tedious breeding program to produce a flinty, hard, high-lysine corn. This process took more than ten years, but they have now produced just exactly what the farmers were asking for.

Dr. Cantrell told me a team of researchers had just returned from a global visit to explore the possibilities for better use of high-lysine corn. The team included a plant breeder, a cereal chemist and an animal nutritionist. The group was headed by Dr. Norman Borlaug, who won the Nobel Prize for his work on short-stemmed wheat. The team visited Central and South America and Asia, including mainland China. The researchers also plan to visit Africa. Here's what they found:

Guatemala is the most advanced country in the use of high-lysine corn. The Guatemalan government has released to farmers a white, hard, flinty high-lysine corn called NUTRICTA. This year 100 tons of NUTRICTA seed will be available for planting. The government plans to supply this corn to orphanages, schools and other institutions.

The short stature of Guatemala's highland natives may be caused by chronic protein deficiency. If so, the widespread adoption of high-lysine corn should correct this deficiency.

Elsewhere in the Americas, the team found that Honduras, Panama and the Dominican Republic are now multiplying high-lysine seed and should become big producers within two or three years. The testing of high-lysine varieties is also proceeding on schedules in Peru, Bolivia, Costa Rica, Mexico, Venezuela, Brazil and Paraguay.

In India, nutritionists have shown that high-lysine corn supplies good quality protein to young children at one-fifth the cost of milk, which is always in short supply in that country. High-lysine corn adapted to tropical and subtropical climates and soils have also been sent to Bangladesh, Burma, Indonesia, Malaysia, Nepal, Pakistan, the Philippines and Thailand for testing.

The lysine-corn situation in southern Africa is complicated. There, corn is an important part of the diet of tribal groups. But Dr. Hans Gevers, professor at the University of Natal in Pietermaritzburg, told me natives have refused to use the high-lysine hybrid (HL-1) developed in South Africa because it is not white enough and the meal is too soft. HL-1 has twice the protein value of the degermed corn meal the natives are accustomed to eating and could reduce the high incidence of kwashiorkor and pellagra among tribal groups. Dr. Gevers, however, hopes the natives will eventually accept the corn. He is more encouraged with his yellow, high-lysine hybrid, HL-2, that was designed for pigs and poultry. The South African Maize Con-

trol Board has set its selling price at 12 percent higher per bushel than regular corn to induce more farmers to plant it.

Communist countries are also benefiting from high-lysine corn. The CIMMYT team found great interest in the corn in China both as a food for humans and for use in pig production. China is the largest swine-producing nation in the world.

To find out what is happening in the U.S.S.R., I wrote to the head of the state corn-breeding department, Dr. K.I. Zima, at Krasnodar, in the southwestern Soviet Union. He told me that Russian plant breeders began working on high-lysine corn in 1967 shortly after our Purdue group sent samples around the world. Six research centers in the U.S.S.R. are engaged in high-lysine corn breeding and six commercial high-lysine corn hybrids (floury type) have been released to farmers. The Soviet Union produces about 1,000 tons of high-lysine corn annually. This production is about one-fifth that produced annually for animal feed in the American Midwest. High-lysine programs are also proceeding in Yugoslavia, Bulgaria and Hungary, but on a smaller scale.

[From the Indianapolis Star, Dec. 12, 1984]

DR. CORY SERVAAS' PROPOSAL—PLAN TO ALLEVIATE FAMINE IN AFRICA INCLUDES INDIANA CORN

(By Rex Redifer)

Dr. Cory SerVaas Tuesday advocated a four-point proposal to help alleviate the African famine, both immediate and long-range.

Dr. SerVaas, who is publisher of the Saturday Evening Post, recently returned from Ethiopia, where she observed the effects of the African famine that is claiming the lives of hundreds of thousands of Africans, some 75 to 80 percent of whom are infants and toddlers.

In addition to widespread calorie-deficient starvation, she found a deadly protein deficiency among the children which she feels could be prevented with high-lysine corn, developed by Dr. Edwin T. Mertz of Purdue University.

Speaking on behalf of The Benjamin Franklin Literary Medical Society, a non-profit organization providing health information to the general public, Dr. SerVaas advocated in the plan:

Ethiopia could combat the lack of protein in African children with use of lysine in three forms. Fermented lysine in power form could be used immediately as a supplement to the grain diet, with dramatic consequences for starving children; high-lysine corn meal currently available in the United States could be sent to the hungry families in Ethiopia to be incorporated into the regular diet; high-lysine seed corn, being hybrid, could vastly increase corn production in the country and nearly double the amount of protein to feed those with protein deficiency.

The government of Ethiopia could produce high-lysine corn as substitute to its present huge tobacco crop.

The Ethiopian government could provide nicotine-containing gums or lozenges to remove the addiction so prevalent there, so that the nation's health-care system would be more able to serve the starving sick.

Subsidy of production of high-lysine corn instead of tobacco production for United States farmers who own tobacco allotments. The plan would urge the government to substitute tobacco subsidies for high-lysine amaranth or triticale in addition to high-lysine corn.

She said the suggestion may be called "the Indiana Plan."

Dr. Mertz, who discovered high-lysine Opaque 2 corn in 1946, and developed the hybrid strain in 1963, said its effectiveness in combating protein deficiency was proved in Columbia, South America, as long as 15 years ago.

The high-lysine corn is used widely in the U.S. for its nutritive value in animal feed, and, according to Dr. Mertz, Midwest farmers have about 150,000 tons of high-lysine corn presently stored for on-farm use.

He pointed out that United States Department of Agriculture has a far higher tonnage of normal corn stored as surplus grain.

He proposed the government offer Midwest farmers 105-115 tons of surplus stored normal corn for each 100 tons of high-lysine corn which might then be shipped to Ethiopia and other distressed areas. He suggested the high-lysine corn be earmarked for infants and children only, with surplus normal corn, wheat rice and sorghum used for adults.

Dr. Servaas pointed out it is especially important that babies and young children be given high protein grains to prevent disease.

"The corn," she said, "is as important as was the discovery of short-stemmed wheat that brought a Nobel Prize for Dr. Norman Borlaug and brought India out of starvation and into self-sufficiency in food production."

High-lysine corn, she said, may be the quickest and cheapest way to get the essential amino acid into the diet of the Ethiopian people.

In future agricultural planning, the corn could play a very important role in preventing famine, because it recently has been shown to outproduce other varieties in dry seasons, she said.

The Benjamin Franklin Literary & Medical Society, in conjunction with Indiana and Purdue universities, will sponsor a two-day lysine symposium in February.



BENJAMIN FRANKLIN
Literary & Medical
· SOCIETY ·

Benjamin Franklin Literary & Medical Society, Inc.

It is widely recognized that individuals must take more responsibility for maintaining their own good health through proper nutrition, daily exercise, and the development of good health habits.

The *Benjamin Franklin Literary & Medical Society, Inc.*, a nonprofit education organization, was established in 1976 to provide information and encouragement to parents, teachers and health professionals in their efforts to educate the general public on the fundamentals of good health. The Society advocates a preventive approach to health care. It seeks to extend to as many people as possible the information that will help them lead more active and healthier lives. Through specially designed publications, programs and activities, the Society has created educational tools with which to promote good health habits to people of all ages. To fulfill its goal, the *Benjamin Franklin Literary & Medical Society* has established three branches: *The Saturday Evening Post Society*; the *Children's Better Health Institute*; and the *Medical Education and Research Foundation*.

The Saturday Evening Post Society

America's best-loved family magazine, *The Saturday Evening Post*, publishes the finest literary works, the most humorous materials, the stories that provide faith and bind families and also serves the public as no other publication does. The *Post* informs its readers about the latest advances in science, medicine, health and nutrition, preventive medicine and how to lead a healthier lifestyle. We conduct national health surveys to further current research on topics such as cancer, herpes and high blood pressure. The *Post Society* also funds different research projects; provides incentives to commercial manufacturers for innovative health equipment; and promotes health advances worldwide. We address the subjects of family, religion, freedom of choice, volunteerism and patriotism—and how the public can help.

Children's Better Health Institute

The *Children's Better Health Institute* is committed to presenting quality, health-related material to educate children from preschool years through elementary-school levels. The *Institute* is the largest publisher of children's health magazines in the country, with a circulation exceeding 1.8 million. The titles are familiar: *Turtle Magazine for Preschool Kids*, *Humpty Dumpty's Magazine*, *Children's Playmate*, *Jack and Jill*, *Child Life*, *Children's Digest*, *Health Explorer*, *Medical Detective* and a new magazine for nursery dwellers, *Stork*.

BEST COPY AVAILABLE

105

These magazines are devoted to an instructional approach that combines fun with learning. Their formats are designed to retain the child's attention with a variety of professionally illustrated stories, games and puzzles that delight and stimulate young minds and imaginations. But, most important, each magazine teaches the child about the fundamentals of health, nutrition, safety and exercise.

The *Children's Better Health Institute* has also launched *The Children's Health Connection*. It is written for parents who want to keep up with the latest information relating to their infant's or child's health. It is a no-nonsense publication that provides you with summaries of the latest information from medical centers at home and abroad. Our reports are clear and concise. Our editorial board is composed of leading experts in child health from all over the United States.

Medical Education and Research Foundation

In accordance with the goals of the *Benjamin Franklin Literary & Medical Society*, the *Medical Education and Research Foundation* was established in 1976. The purpose of the *Foundation* is to disseminate information to advance the medical knowledge of the layperson. It has been recognized that material available to the public on medical advances is written all too often in complex medical terminology. The *Medical Education and Research Foundation* publishes *Medical Update*, a monthly newsletter that reports and illustrates important concepts and developments in preventive medicine, safety procedures and techniques, health dangers and proper dietary habits.

The information is documented by reliable sources such as the *New England Journal of Medicine*, *United States Food and Drug Administration Drug Bulletin*, the *British Medical Journal*, *Mayo Clinic Proceedings* and *Therapeutics*, among others.

BEST COPY AVAILABLE

[From the Journal and Courier, Lafayette, IN, Dec. 13, 1984]

COULD AN "INDIANA PLAN" HELP EASE AFRICA'S STARVATION?

Dr. Cory SerVaas, of Indianapolis, the multitalented publisher of the Saturday Evening Post, made some interesting observations this week about how to alleviate the widespread famine conditions in Africa.

Just back from a trip to Ethiopia where she observed the effects of the famine that is claiming the lives of hundreds of thousands of Africans Dr. SerVaas, a medical doctor shared her thoughts on behalf of The Benjamin Franklin Literary Medical Society.

She said she found not only calorie deficient starvation, but also deadly protein deficiency among the children. The latter, she contends, could be prevented with high-lysine corn, discovered then developed as a hybrid at Purdue University between 1946 and 1963 by Dr. Edwin T. Mertz.

Dr. SerVaas said fermented lysine in powder form could be used immediately as a supplement to the grain diet with dramatic consequences for starving children. High-lysine corn meal, available in the United States, also could be sent to the hungry families in Ethiopia to be incorporated into their regular diet.

Finally, high-lysine seed corn could be introduced into Ethiopia. It could vastly increase corn production and nearly double the amount of protein to feed those with protein deficiency.

The Ethiopian government, Dr. SerVaas pointed out, could produce high-lysine corn as a substitute for its present huge tobacco crop.

Dr. SerVaas outlined a number of other measures, saying they might all be wrapped up and called "the Indiana plan."

This special kind of corn, widely used in the U.S. for its nutritive value in animal feed, "is as important as was the discovery of short-stemmed wheat that brought a Nobel Prize for Dr. Norman Borlaug and brought India out of starvation and into self-sufficiency in food production," Dr. SerVaas declared.

It is inspiring to think that an "Indiana plan," heavily founded on state science and research and a brilliant Indiana woman's vision and concern for others, might in some way ease the pain caused throughout the world by the pitiful starvation in Africa. We hope that her idea gains support, and that her words are translated into action while many more lives can be saved.

It would be another demonstration of how people the world over can and do benefit from those who quietly, patiently and without fanfare, work their miracles in the labs and fields and greenhouses of the great universities such as Purdue.

SECTION 1. LYSINE FOR FEED

CHAPTER 1. WHAT IS LYSINE?

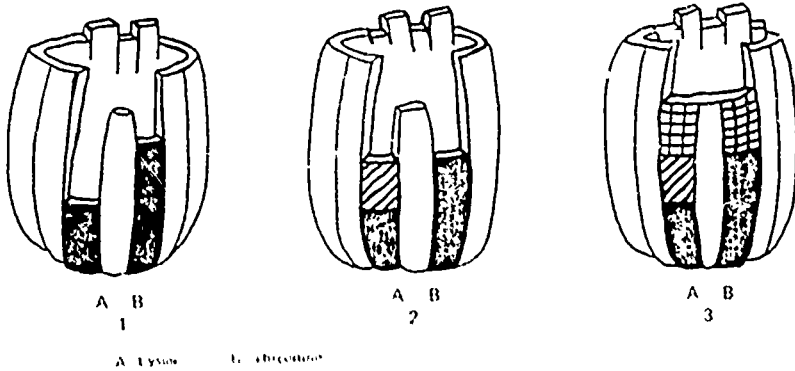
The principal component contained in muscles, blood and organs of human beings and animals is a nitrogen compound called protein.

This protein is decomposed by hydrolysis with acid and alkali to more than 20 amino acids. Therefore those necessary for men and animals are said to be the amino acid patterns and their absolute amount. All of these more than 20 kinds of amino acid are not necessarily taken from outside, because more than a half of them are synthesized in vivo from either fat and carbohydrate taken as food or mutual interactions of amino acids. These amino acids are called non-essential amino acids.

On the other hand, those amino acids which cannot be synthesized from other nutrients in vivo or even if synthesized do not suffice the requirement of human body and animals, are called essential amino acids. Lysine is one of special amino acids important for growth of animals belonging to those 8-10 kinds of essential amino acids, and is needed in a comparatively large amount to the living body. Lysine is the most deficient in grains such as corn, wheat and rice, taken by men and animals as a staple for food. Lysine is called the first limiting amino acid in regard to corn, wheat and rice, which is followed by the second limiting amino acid, the third and so on.

Protein is evaluated important when an absolute amount of essential amino acids contained in the protein well corresponds to a fixed ratio, which are required by men and animals. Those in which amino acids are well balanced are, for example, human milk, cow milk, egg, etc., but in many foodstuffs on account of an amino acid or two being short, thus such protein is only utilized on a level with such amino acid being short. As the result, it is a waste of expensive protein. Therefore, if such

amino acid being deficient is supplemented, value of the whole protein is improved. It can be explained as follows:



The above amino acid barrels indicate the protein values. The lowest part shows the maximum value of protein. Barrel 1 is an amino acid pattern of wheat. Barrel 2 indicates that the first limiting amino acid is added to the level of the second limiting amino acid, and the barrel 3 indicates that the first and second limiting amino acid are added to the level of the third limiting amino acid, apparently showing the fact that by addition of amino acid being deficient, nutritive value of protein is improved. Consequently, by adding lysine, protein value of wheat can be improved by 25-50%.

Our company have invested a big fund so far being confident that among those amino acids produced by us lysine, is, as so-called bulk product, to have a wide range of application fields for human food and animal feed. Amino acids of large demand at present are monosodium glutamate and glycine for foodstuff, methionine for feed, followed by lysine, being one of amino acids expected to have a huge demand and to be developed in future technically and economically.



Cory SerVaas, M.D., editor and publisher of the Saturday Evening Post, examines children suffering from kwashiorkor, a protein deficiency, during a recent trip to Ethiopia.

The CHAIRMAN. Thank you very much, Dr. SerVaas.

Dr. Mertz is in the audience, and if he would come and join you at the table we would be pleased to see him and have him available for questions that panel members might have.

Dr. Mertz, welcome to the hearing.

Senator KASSEBAUM, do you have questions of the witnesses?

Senator KASSEBAUM. Thank you, Mr. Chairman.

I would like to ask Mr. McCloskey first, when you said you questioned whether the United Nations would be the best instrument to use to pull together a donor group, do you have a suggestion for a better mechanism? What better mechanism do you see?

Mr. McCLOSKEY. I felt rather strongly that it would be better if the U.S. Government were to call these potential donors together. This is why I said we appreciated the administration appeal initially when it was made, roughly 2 months ago.

Senator KASSEBAUM. Has there not been, though, some reluctance on the part of other nations to respond to the United States stepping out in front, in the feeling that we always try to tell other nations what to do? Is this not a way to prevent resentment for our trying to take a leadership role in this?

Mr. McCLOSKEY. I could perhaps assume that.

Senator KASSEBAUM. I have enormous respect for the work of the Catholic Relief Services and for CARE, who over the years have provided the support necessary, really, that has kept thousands of people alive. So I greatly respect your observations.

Let me ask all of you who have worked there this: Do you feel that there is a donor coordination today, either among the private voluntary organizations or among governments, that is working, and could it be working better?

Mr. McCLOSKEY. In Ethiopia the coordination among the private agencies I think is very effective and efficient. I am not as persuaded that there is a parallel coordination, as I think there should be, among donor governments.

Mr. JOHNSTON. I would say, Senator Kassebaum, that I concur. I do not think this is an American problem. It is an OAU problem, and it should be the OAU that is championing the cause of those so terribly affected on their own continent.

It should be the OAU that takes the lead in providing a forum to which donors are invited, both multinational, national, and private, and that they promote this. The OAU is famous for condemning all kinds of things and pointing out shortfalls, but it is loathe to become involved in this kind of thing, which I think the United Nations should push OAU into.

It certainly has a vested interest in seeing that so many of the seriously affected and marginally affected countries are dealt with fairly.

Senator KASSEBAUM. Dr. SerVaas, I would just like to say that I think your experience is certainly a moving one and one that I hope attention is being paid to. I do not know enough about medicine, but I think in the points you raised about what happened to you are important ones. What of the health care problems in the refugee camps? Is there enough assistance being given or attention paid to the health care problems?

Dr. SERVAAS. Well, there just is not—at Bati they had 6 doctors, 3 nurses, and 32 gravediggers. You know, they have people waiting

for help. The camp I was in had no doctors and nurses. They just had a young man in charge who was maybe 30 years old and his assistant. All of these people were being relocated and ill people were being relocated to other camps and distribution centers.

They do not have enough people to diagnose typhus. Typhus is a plague that killed 3 million people in Russia. It is a terrible plague, and it is there and it will get worse. We could wipe it out with immediate attention.

I am the first one, the CDC said, to come back with it. Our people do not know how to treat it. We do not have it in this country. It is louse borne. It is not infectious to you all. You would have to have a tick or a louse give it to you.

Senator KASSEBAUM. Do you feel, with the work of the PVO's, that you are meeting some of the health care needs, or should there be greater emphasis, perhaps through the Red Cross? I do not know what Red Cross efforts are being made for health care assistance. It is really something on the whole that I do not know whether we have focused on as far as the needs that exist in that area.

Mr. McCLOSKEY. I am not certain, Senator, that all of the needs have been adequately identified. In general, my agency has taken the view that there needed to be more money available to provide basic health care services to accompany feeding programs.

I agree with what was said earlier here by administration witnesses. One must be careful that you do not put total reliance on feeding programs, because there is a risk of creating disincentives. They must be accompanied by medical care programs.

Now, for that some of the private agencies have difficulty raising privately contributed funds. We were pleased to see that in the last session of the Congress in the continuing resolution there were two amounts of money that were related to medical and health care services that can accompany the feeding programs. But I do not believe all of the diseases have been identified.

Senator KASSEBAUM. Obviously not. Thank you.

Mr. JOHNSTON. Senator Kassebaum, if I may add to your question. I think there is an appalling lack of adequate health care. We are in the effort of trying to keep people alive, not trying to keep them healthy. We have not even reached that plateau yet.

If one charted out what we would need to raise the nutritionally depleted population that we are dealing with up to a level of acceptable health standards, it would be clearly astronomical.

Senator KASSEBAUM. Well, I think acceptable health standards to the level what we think of here is. But on the other hand, part of even keeping them alive seems to be a major relationship to the starvation and the disease that is springing from those refugee camps.

Mr. JOHNSTON. I think that is what many PVO's are attempting to do, to put this minimum but absolutely essential structure of health care available at all of these places. Clearly, we are talking about huge quantities of human resources as well as financial resources.

Senator KASSEBAUM. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Kassebaum.

Dr. SerVaas, you obviously have had this personal experience with typhus, and in your recent experience in Ethiopia how widespread was the typhus epidemic, or had it reached epidemic proportions? Was your case an isolated one or were there many persons suffering from typhus?

Dr. SERVAAS. In retrospect, how I felt, like not wanting to have anyone touch you and moving your eyes and not your head, I saw a lot of typhus, but I did not know it was typhus. No one had told us anything about typhus. We are not vaccinated. There is not really a good vaccine in the country here. We do not vaccinate our people for it.

But doxycycline, which is inexpensive—and I cannot stress enough that Pfizer and Lederle both sent, at our urging, \$100,000 worth of doxycycline on a plane from the White House last Saturday night, and it is over there. It could go a long way.

And we are talking about death. This is fatal for the elderly unless treated with doxycycline, which is a magic bullet. It is fatal for the elderly, and it is just fatal. I mean, these deaths you see on television are not all from starvation.

And they will continue to get worse, because it is lice and dirty clothing. And I handled children with such dirty clothing, they had worn them for years. The clothes looked like just rags, all dirty grey rags. So it will get worse. The famine will bring on worse typhus unless we act on that.

Now, I must say that I really came to have Dr. Mertz tell about high-lysine corn, because kwashiorkor, it is so tragic. The kids lose their appetite. They will not even eat when they get kwashiorkor. And Dr. Mertz' corn is the difference in life and death, and it has been in Central America.

He has worked and developed it, and he is an unsung hero of our time on high-lysine corn. He saved many, many children from kwashiorkor in Central and South America. He went down and helped work it out there. And I invited him to go to Africa and help work it out, and he declined, and wisely, knowing what is there.

But I think that Dr. Mertz' high-lysine corn is something that you should hear about from him.

The CHAIRMAN. Well, we would like to, but I just want first to isolate the two questions. It seems to me that your experience should at least be a warning signal for other Americans who are proceeding there, that they really need to take precautions to avoid the fate that you have experienced, quite apart from those who might be assisted in the population.

But, Dr. Mertz, what is the relevance of high-lysine corn in a practical way to the Ethiopian famine or to that which is found in the Sudan or Mali or, as witnesses have pointed out, in 21 countries of Africa? And who could potentially institute a significant program, either piecemeal or wholesale, to make a change?

Dr. MERTZ. Well, I might say that we have known about this corn now for 20 years, and that the International Maize and Wheat Improvement Center near Mexico City has been working on this with support from the JNDP; and they have developed tropical varieties of high-lysine corn that are as high-yielding as the normal varieties, and they are trying to introduce this in all areas around the world where corn can be cultivated.

The high-lysine corn that is being raised in the United States is corn seed that has been provided by Crowe's Hybrid Corn Co. of Milford, IL, and Mr. Crowe is here with us today. And we do not know exactly how much of this corn is being stored at the present time in the Corn Belt. I think that my original estimate of 150,000 tons may be low, and maybe Mr. Crowe can correct me on this. It is possible that we may have maybe a half million to 1 million tons of this in the bins at the present time, and the farmers are planning on using it to feed their animals.

This corn was proved 15 years ago in Colombia, that it was proved then that if you just replace the normal corn as eaten in Colombia and that has caused this disease condition, kwashiorkor, in children 2 to 4 years of age, if you simply put them on a diet—it must have adequate minerals and vitamins, of course—put them on a diet that has no other source of protein but high-lysine corn, that this will actually cure them of kwashiorkor.

So children that developed kwashiorkor and were going to die from it from eating normal corn could be cured with high-lysine corn. So this type of corn, if it were used in Ethiopia, should be just as spectacular. Of course, it would have to be fed with a small vitamin and mineral supplement. But otherwise it should be very effective.

And we have all this corn now that we are going to use to feed the pigs and the livestock. It seems unfortunate that we should have it for that purpose when it could be used for a much more important purpose.

The CHAIRMAN. Do we know whether any of the high-lysine corn has reached Ethiopia? Do you know, Dr. SerVaas?

Dr. SERVAAS. Yes, we have sent some. But again, we had problems of the freight, of getting it over. We flew some on the plane with doxycycline. We have a direct route through the Sudan Interior Mission [SIM]. It is the largest Christian missionary, interdenominational international missionary organization, and they can take their four-wheel vehicles and move it right out to the people.

These people we are working with in Ethiopia are the executive director of the SIM. The Ethiopians now call it the society for international missionaries, because they do not like Sudan.

But Alex Fellow, the director of it, and his son, Tom Fellow, grew up there. Tom Fellow is a missionary's son and he speaks the language fluently, as do his father and mother. And they can go right through the redtape of the government.

The people are asking for Bibles and asking for mimeographed King James versions because they are not allowed to use their presses anymore. They have closed down their press. But they cannot do offset to do the Bibles, but they can do it.

And so these people have the confidence. The Ethiopian people are not all Marxists. They move it right through. So we do not have a problem getting it into there if we can get the freight paid, like he said. We do think that we have very good ways to get it immediately to the camps, to the doctors, to the missionaries, and to the Red Cross camps without the interference of the Ethiopian Government.

The CHAIRMAN. Dr. Johnston, Dr. SerVaas has once again mentioned the freight cost situation. I just want to elevate that again

for consideration, because you have mentioned that prominently in your testimony. The figures that are being suggested in the administration bill and in H.R. 100, I think there is a difference of opinion on the freight amounts that is substantial.

Could you offer a little additional testimony that would highlight your own judgments about what ought to be considered in the congressional resolution of this?

Mr. JOHNSTON. We have asked AID for an immediate allocation of \$6 million for the PVO community, and that to be followed as it is monitored as to how many of these gifts in kind actually come forward. If the freight issue is solved, we think there will be a tidal wave of gifts, and that quantity of gifts would make a significant contribution to the effort of what we are trying to do in Ethiopia or in any other drought-affected country in Africa.

But \$6 million was the figure that CARE calculated and was passed to AID. But at the moment no action has been taken, although certainly what Mr. McPherson said today, that everything is being provided for, I would disagree with him on at least the underwriting of freight for CIK's.

The CHAIRMAN. In other words, to restate the obvious, the \$6 million request that you have made you believe will leverage many millions of dollars of in-kind gifts—

Mr. JOHNSTON. Absolutely.

The CHAIRMAN [continuing]. From generous Americans?

Mr. JOHNSTON. Absolutely. We have, for example, the Agriculture Department of the State of Minnesota that has offered us 30,000 tons of wheat. But the problem is the freight for it, and we need that food, but we cannot accept it, we cannot move it, unless we can ship it across the ocean.

Now, it is fair to say that for food which is purchased here for, for example, \$100 a ton, sorghum, a low grade of sorghum, by the time it is actually delivered into the hands of beneficiaries somewhere in the heart of Sudan we are talking about a cost per ton of somewhere that finally equals probably \$400 a ton.

It is astronomical, the amount of expenses related to moving that through the whole system and finally into the hands of the beneficiary. And the further you move inland into Africa, the higher that freight cost goes.

So one of the administration representatives, Mr. Crocker, was talking about economically it is much, much wiser for America to invest substantial amounts of money into long-term economic development of Africa, rather than doing this bandaid business we are into now, which is clearly in the long run far more expensive, far less efficient.

The CHAIRMAN. Dr. SerVaas, did you have a comment on that?

Dr. SERVAAS. I think that if we could send high-lysine corn, to teach these people how to do it in the feeding centers, we could get them to be sufficient. And if we could get them to plow up or not plant tobacco—Zimbabwe is the No. 2 exporter of tobacco and they have starvation, too, in Africa. They are the No. 2 exporter. And there is tobacco in Ethiopia being grown.

If we could get them to give up their tobacco fields and plant high-lysine corn and be self-sufficient, and teach them how to use hybrid corn—they are still in the dark ages, with open pollinated

corn. You will remember, in Iowa and Kansas, you used to get 50 bushels to the acre. Now you get 189 bushels to the acre with hybrid corn. They do not even have anything but the old-fashioned open pollinated.

At Eddyville, IA, they are building a \$42 million lysine plant, the Japanese. It is called Lysine U.S.A. It is that important for feed for animals. And in Missouri, I am told they are building a \$100 million lysine production plant. They synthesize lysine. It is that important.

And I think that Dr. Mertz' contribution to society would be just as great as Normal Borlaug's green revolution.

The CHAIRMAN. Dr. Johnston.

Mr. JOHNSTON. Senator Lugar, I would like to place before your committee the sadness that the PVO community finds in the events that transpired in California 10 days ago. On behalf of the Ethiopians who have not received the money which was given in good faith, that was to benefit them, it is of course a shame for all of us, particularly in the PVO community, since the organization was one of our community.

But I would like to ask your committee to recognize the tremendous contribution that the PVO community renders to our world, and that one very sad incident, regrettable admittedly, should not negatively affect the American donors who have in good faith entrusted their resources to agencies for the utilization for the benefit of many, and that this unfortunate event in California be put in its proper place and that the good will and good work of many PVO's not be tarnished or diminished in the eyes of the American public.

The CHAIRMAN. Thank you very much for that statement. It is a very important contribution to our hearing.

Senator Kassebaum, do you have further questions of witnesses?

Senator KASSEBAUM. No, Mr. Chairman. Thank you. I appreciate the testimony.

The CHAIRMAN. We really do appreciate your testimony and the contributions you have made in your prepared text, as well as in these additional oral statements. They will be very helpful to us.

Thank you very much. The hearing is adjourned.

[Whereupon, at 12:46 p.m., the committee adjourned, subject to call of the Chair.]

